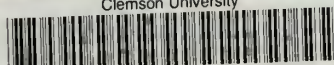


I29.2: R 29 / 2 / 95 7

Clemson University



3 1604 019 746 157

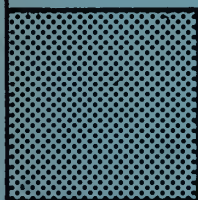
55 years



RECLAMATION

REPAYMENTS

and Payout Schedules



1902-1957

DEPARTMENT OF THE INTERIOR



Bureau of Reclamation

RECLAMATION

REPAYMENTS

and Payout Schedules

1902-1957

DEPARTMENT OF THE INTERIOR

FRED A. SEATON—Secretary

Bureau of Reclamation


W. A. Dexheimer—Commissioner

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1959

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.,
and the Bureau of Reclamation, Denver Federal Center, Denver, Colorado.
Price, \$2.25

PREFACE

This edition of "Reclamation Repayments and Payout Schedules" supersedes the volume, "How Reclamation Pays," published as of January 1, 1947, by the Bureau of Reclamation, and the 1952 edition entitled "Repayment Histories and Payout Schedules." This volume brings these data up to date as of June 30, 1957.



Digitized by the Internet Archive
in 2012 with funding from
LYRASIS Members and Sloan Foundation

<http://archive.org/details/55yearsreclamati00nati>

CONTENTS

SUMMARY.....	Page IX
GLOSSARY.....	xxx

PROJECT AND DIVISION

	Page		Page
Arnold.....	1	Fruitgrowers Dam.....	90
Avondale.....	3	Garden City.....	91
Baker.....	4	Gila.....	92
Balmoreha.....	6	Wellton-Mohawk division.....	92
Belle Fourche.....	8	Yuma Mesa division.....	92
Bitter Root.....	11	Grand Valley.....	96
Boise.....	13	Garfield gravity division.....	96
Arrowrock division.....	14	Orchard Mesa division.....	97
Payette division.....	16	Grants Pass.....	100
Boulder Canyon:		Hondo.....	102
All-American Canal System.....	24	Humboldt.....	103
Hoover Dam and powerplant.....	28	Hungry Horse.....	105
Buffalo Rapids.....	32	Huntley.....	107
Buford-Trenton.....	34	Hyrum.....	110
Burnt River.....	35	Intake.....	112
Cachuma.....	37	Kendrick.....	113
Canadian River.....	39	King Hill.....	117
Carlsbad.....	40	Klamath.....	118
Central Valley.....	44	Langell Valley division.....	118
Chief Joseph Dam.....	51	Main division.....	120
Collbran.....	53	Pumping division.....	122
Colorado-Big Thompson.....	54	Tule Lake division.....	123
Colorado River.....	60	Lewiston Orchards.....	129
Colorado River Front Work and Levee		Lower Yellowstone.....	131
System.....	61	Mancos.....	134
Colorado River Storage.....	63	Michaud Flats.....	136
Columbia Basin.....	70	Middle Rio Grande.....	137
Crescent Lake Dam.....	74	Milk River.....	139
Dalton Gardens.....	75	Chinook division.....	139
Deschutes, North unit.....	76	Dodson pumping unit.....	146
Eden.....	80	Fresno storage division.....	147
Eklutna.....	82	Malta and Glasgow divisions.....	148
Falcon.....	84	Minidoka.....	154
Fort Peck.....	86	American Falls Reservoir division.....	154
Fort Sumner.....	87	Gooding division.....	155
Frenchtown.....	88	Gravity division.....	157

	Page		Page
Minidoka—Continued		Ogden River.....	212
Jackson Lake Reservoir.....	159	Okanogan.....	214
North Side Pumping division.....	160	Orland.....	217
South Side Pumping division.....	160	Owyhee.....	221
Upper Snake River storage division.....	161	Palisades.....	224
Mirage Flats.....	166	Palo Verde.....	227
Missoula Valley.....	168	Paonia.....	228
Missouri River Basin.....	169	Parker-Davis.....	229
Angostura unit, Cheyenne division....	169	Pine River.....	232
Bostwick division.....	174	Preston Branch.....	234
Boysen unit, Boysen division.....	176	Provo River.....	235
Canyon Ferry unit, Helena-Great Falls division.....	177	Aqueduct division.....	235
Cedar Bluff unit, Smoky Hill division..	177	Deer Creek division.....	235
Crow Creek Pump unit, Three Forks division.....	177	Rapid Valley.....	238
Dickinson unit, Heart division.....	178	Rathdrum Prairie.....	240
Fort Clark unit, North Dakota pump- ing division.....	179	Post Falls unit.....	240
Frenchman-Cambridge division.....	180	Hayden Lake unit.....	241
Glendo unit, Oregon Trail division....	181	Rio Grande.....	243
Hanover-Bluff unit, Bighorn Basin division.....	182	Irrigation division.....	243
Heart Butte unit, Heart division.....	182	Elephant Butte power and storage division.....	248
Helena Valley unit, Helena-Great Falls division.....	183	Rio Grande River rectification.....	248
Jamestown unit, Garrison division....	184	Riverton.....	252
Keyhole unit, Cheyenne division.....	184	First and second divisions.....	252
Kirwin unit, Solomon division.....	185	Third division.....	252
Kortes unit, Oregon Trail division....	186	Power division.....	253
Lower Marias unit, Marias division....	186	Rouge River Basin, Talent division.....	255
Owl Creek unit, Bighorn Basin divi- sion.....	186	Salt River.....	258
Rapid Valley unit, Cheyenne division..	187	San Diego.....	262
St. Francis unit, Upper Republican division.....	188	San Luis Valley.....	264
Sargent unit, Middle Loup division....	188	Platoro unit.....	264
Savage unit, Yellowstone division....	189	Sanpete.....	265
Shadehill unit, Grand division.....	190	Ephraim division.....	265
Transmission division.....	190	Spring City division.....	266
Webster unit, Solomon division.....	192	Santa Maria.....	267
Moon Lake.....	193	Scofield.....	268
Newlands.....	195	Shoshone.....	270
Newton.....	198	Frannie division.....	270
North Platte.....	199	Garland division.....	271
Interstate division.....	200	Heart Mountain division.....	272
Fort Laramie division.....	201	Willwood division.....	272
Northport division.....	202	Power division.....	273
Storage division.....	202	Solano.....	280
Ochoco.....	211	Strawberry Valley.....	282
		Sun River.....	284
		Fort Shaw division.....	284
		Greenfields division.....	286
		Truckee Storage.....	289
		Tucumcari.....	291

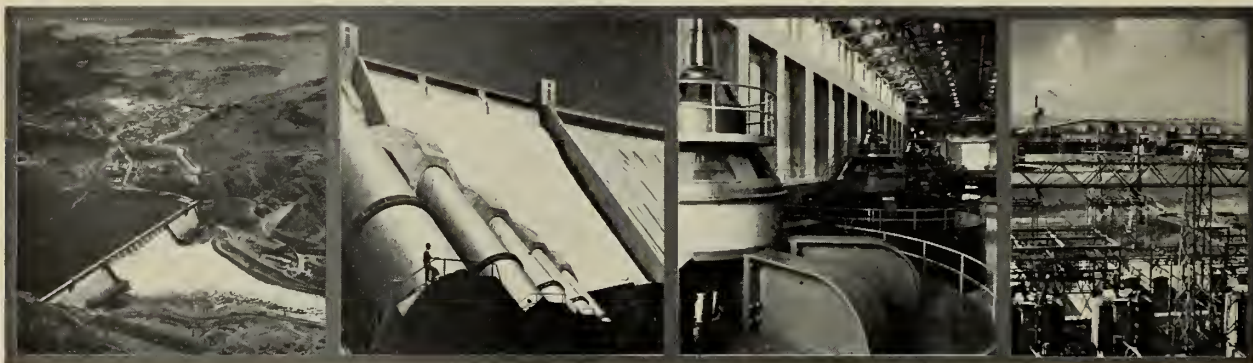
CONTENTS

VII

	Page		Page
Umatilla	293	Williston	316
East division	293	Yakima	317
South division	295	Kennewick division	317
West division	297	Kittitas division	318
Uncompahgre	300	Roza division	320
Vale	303	Storage division	321
Ventura River	305	Sunnyside division	324
Vermejo	308	Tieton division	326
W. C. Austin	309	Yuma	332
Washita Basin	312	Reservation division	333
Weber Basin	313	Valley division	336
Weber River	314	Yuma Auxiliary	340
INDEX			345



MELTING SNOW AND RAINFALL PROPERLY CONTROLLED



BY DAMS AND CANALS PRODUCE WEALTH



THROUGH INDUSTRIAL POWER, CROPS, LIVESTOCK, AND TRADE



TO REPAY CONSTRUCTION COSTS

SUMMARY

The criterion for authorization of Federal Reclamation projects since their inception has been whether they are feasible. At the inauguration of the Federal Reclamation program, Congress authorized the Secretary of the Interior to proceed with the construction of an irrigation project if the Secretary determined that the project was practicable and that the estimated cost of construction could be returned to the United States by the water users in not exceeding 10 annual installments. Amendments and supplements to the Reclamation law subsequent to the original Reclamation Act of 1902 lengthened the period during which reimbursable project costs might be repaid.

The repayment contracts which schedule annual payments on construction charges are written and executed in accord with the laws that govern the particular project or unit. Many different repayment plans are found in the repayment contracts because the repayment requirements of the general Reclamation law have varied over the years and frequently individual project authorizing and other acts included repayment provisions tailored to the circumstances on the individual project.

Reclamation repayment laws

Act of June 17, 1902: The Reclamation Act of June 17, 1902 (32 Stat. 388), authorized the issuance of water-right applications by which individual water users contracted to repay their portion of the construction cost of a project in a period of 10 years.

Act of February 21, 1911: The Warren Act, (36 Stat. 925), provided for the disposition of surplus water to individuals or irrigation enterprises outside Government Reclamation projects, on terms determined to be just and equitable. The terms of payment now usually run from 10 to 40 years.

Act of August 13, 1914: The 20-year repayment plan, authorized by the Reclamation Extension Act of August 13, 1914 (38 Stat. 686), was de-

signed to permit a longer term for payment than the Reclamation Act of 1902.

Act of May 15, 1922: By the act of May 15, 1922 (42 Stat. 541), the Secretary of the Interior was authorized to contract with legally organized irrigation districts, and to dispense with water-right applications on the part of landowners and entrymen.

Act of December 5, 1924: The Fact Finders Act of December 5, 1924 (43 Stat. 672), provided for a plan of payment based on 5 percent of the average gross crop value in a district for a 10-year period. These payments, as a general rule, will run for long terms of years. Authority for additional contracts of this type was repealed in 1926.

Act of May 25, 1926: The Omnibus Adjustment Act of May 25, 1926 (44 Stat. 636), authorized a 40-year repayment period in place of the crop repayment plan. Some old contracts were renegotiated under this act and many new contracts were entered into on the 40-year basis provided by this law.

Act of August 4, 1939: The Reclamation Project Act of 1939 (53 Stat. 1187), provides for flexibility in determining the annual rate of repayment for new contracts, again on a crop-income basis, but total repayment must be made in 40 years for distribution systems. A development period not to exceed 10 years may be established, from the time water is delivered to a block of land, before payment of construction charges commences. Water service contracts are authorized for storage and carriage works. It also authorizes the negotiation of amendatory contracts for old projects, under the same rules, or for submission of the most practical amendatory plan to Congress for its approval.

The Reclamation Project Act of 1939 authorizes the United States to allocate portions of the total cost of a project to be repaid from power revenues or from municipal water revenues, and to flood control and navigation on a nonreimbursable basis. This made feasible for construction many projects

where the water users could not reasonably be expected to repay the entire costs.

Act of August 14, 1946: This amendment (60 Stat. 1080) to the Fish, Wildlife and Game Act of 1934 provides for nonreimbursable allocations to the preservation and propagation of fish and wildlife for new projects.

Act of October 7, 1949: A number of contracts have been entered into pursuant to the Rehabilitation and Betterment Act (63 Stat. 274). This act provides that repayment of rehabilitation and betterment expenditures on Federal Reclamation projects is to be in installments fixed in accordance with the ability of the water users to pay, and, to the fullest practicable extent, is to be scheduled for return concurrently with the water users' existing construction repayment obligations. Determinations of the Secretary of the Interior with regard to the rate and schedule for repayment of such expenditures are not effective until either 60 days after they have been submitted to House and Senate Committees on Interior and Insular Affairs, or earlier if each such committee approves.

Act of July 4, 1955: Public Law 130—84th Congress (69 Stat. 244) as amended May 14, 1956 (70 Stat. 155) authorized loans for the construction of distribution systems on authorized Federal Reclamation projects by irrigation districts and other local water user organizations. The terms of repayment of the loans are similar to the standard repayment provisions of Reclamation law except that a contribution of up to 10 percent of the cost of construction is required of the local organization.

Act of June 13, 1956: Public Law 575—84th Congress (70 Stat. 274) provides essentially that drainage and minor completion work on projects being constructed pursuant to the Federal Reclamation laws may be performed by the repayment organization concerned using federally appropriated funds. In the event construction work to be accomplished by any one repayment organization, pursuant to contract with the United States, exceeds a total cost of \$200,000, the act requires that such contract shall not be executed on behalf of the United States prior to the expiration of 60 calendar days following submittal of the contract to the Congress for reference to the appropriate congressional committees. The 60-day waiting period may be shortened if the appropriate con-

gressional committees approve the contract sooner.

Act of July 2, 1956: Public Law 643—84th Congress (70 Stat. 483) provides for the inclusion in any long-term water service contract pursuant to section 9 (e) of the Reclamation Project Act of 1939 a provision for renewal if the contracting organization so requests. It also provides for the crediting of water user payments in excess of annual operation and maintenance costs against the organization's appropriate share of the water supply works construction costs until such time as the total credits equal the organization's share of the construction costs. Thereafter no construction component would be included in the water service charges. Public Law 643 also provides that a long-term section 9 (e) contract can be converted to a section 9 (d) construction repayment contract at such time as the amount of the construction costs remaining to be amortized can be repaid within the term (usually 40 years) of a contract under section 9 (d). The act provides that any party to any contract entered into pursuant either to section 9 (e) or section 9 (d) will have a first right to a stated share of the project's available water supply during the term of the contract or any renewal thereof.

The act of July 2, 1956, clears up many points with regard to the administration of sections 9 (d) and 9 (e) of the Reclamation Project Act of 1939. In so doing, several major objections that had been directed against the section 9 (e) water service type of contract were alleviated. These objections are: (1) That no assurance can be given in the contract itself that the contract will be renewed upon its expiration; (2) that the water users who have this type of contract are not assured that they will be relieved of payment of construction charges after the Government has recovered its entire irrigation investment; and (3) that the water users are not assured of a "permanent right" to the use of water under this type of contract.

Act of August 6, 1956: The Small Reclamation Projects Act of 1956 (70 Stat. 1044) as amended, authorizes loans and grants to irrigation districts, conservancy districts, other public agencies, and States for the construction of projects similar to those of the regular Reclamation program.

While such projects must have irrigation as a principal purpose, they may also provide for power production, flood control, recreational benefits,

fish and wildlife improvement, and municipal and industrial water supplies.

The act authorizes the Bureau of Reclamation to grant or lend up to \$5,000,000 to local sponsors to aid in the construction of any approved project. Grants or loans will be limited to projects that will not have an overall cost of more than \$10,000,000, inclusive of any local contribution.

The law requires that the organization seeking Federal aid itself finance a portion of the construction costs. For new projects this portion must cover the costs of acquiring lands for rights-of-way and other purposes, and of obtaining water rights up to a limit of 25 percent of the reimbursable costs. Reimbursable costs are those that the irrigation, municipal, and industrial water users or power producers are obligated to repay. Costs allocated to flood control or fish and wildlife benefits are nonreimbursable and the local organization may obtain an outright grant for such amounts. The project must be found financially feasible and assurance must be given by the State that the water rights for the project are as claimed. Construction of the project will be the responsibility of the local organization.

Loans under this act are to be repaid in a period not to exceed 50 years, exclusive of a development period of not to exceed 10 years, with no interest on those portions of the reimbursable cost properly charged to the irrigation of lands not in excess of 160 acres in a single ownership.

The portions of the reimbursable cost properly chargeable to other purposes—including the irrigation of lands in excess of 160 acres in a single ownership, commercial power, or municipal, domestic and industrial water—must pay interest. This rate of interest is based upon the rate paid on certain long-term obligations of the United States and is determined each year by the Secretary of the Treasury and applies to all contracts signed during that year.

Special project acts: In addition, a number of special acts control the terms of repayment of individual projects. Notable among these are the Columbia Basin Project Act of March 10, 1943 (57 Stat. 14); the Boulder Canyon Project Act of December 21, 1928 (45 Stat. 1057), as amended by the Adjustment Act of July 19, 1940 (54 Stat. 774); and the act authorizing the Colorado River Storage project and participating projects (70 Stat. 105, April 11, 1956).

Repayment of project costs

The Reclamation Project Act of 1939 (53 Stat. 1187), was designed to meet the difficulties encountered by farmers in paying their construction charges during a depression period under the fixed schedules established by the 1926 act. The 1939 act in section 4 provides for a variation in construction charges again in accordance with crop values, under a formula similar to that of the 1924 act, but limiting the period of repayment to 40 years. Section 7 of the act further authorizes the Secretary to negotiate for repayment contracts in excess of 40 years, but such repayment contracts are limited to existing projects or projects under construction and must be ratified by Congress.

The 1939 act modified the rules of feasibility. It brought into Reclamation law the concept that benefits from Reclamation projects were more than local in scope, and benefits that were national in character should not be a burden on the beneficiaries of Reclamation projects. In other words, certain values assigned to national benefits could be deducted from the cost of a project for repayment purposes. Section 9 (b) of the 1939 act provides that allocations of cost to flood control and navigation would be nonreimbursable.

An important feature of the 1939 act (as amended by the act of July 2, 1956) for repayment of the cost of irrigation works is found in section 9 (e), which permits an extended period for return of irrigation costs by sale of water without a fixed repayment period. Section 9 (e) contracts are applicable only to works connected with water supply and do not apply to distribution systems. The Secretary can renew such contracts and can convert them to a 9 (d) type contract. All contracts for irrigation distribution systems executed in accordance with the 1939 act are limited to 40 years under provisions of section 9 (d) of the act. In like manner, contracts for the sale of power and municipal water are limited to forty years with the privilege of the Secretary to renew these contracts from time to time.

Reclamation law was further modified in 1946 by passage of the act of August 14, wherein provision was made by Congress that costs properly allocable to fish and wildlife benefits need not be repaid by the project beneficiaries.

During the period 1933 to 1940 Congress appropriated large sums for undertaking public works throughout the United States. These sums were

appropriated to the Federal Emergency Relief Administration, Public Works Administration, and the Works Progress Administration. The acts of Congress appropriating these funds in general provided that the works were to be constructed in accordance with existing law controlling their authorization, and under the direction of the agency responsible for the administration of the existing laws. Reclamation projects were among the public works initiated under the authority vested in the President for the expenditure of relief funds. Such initial authorizations were later ratified by findings of feasibility under Reclamation law, or by a specific authorization by Congress. In general, these relief acts in no way modified the feasibility requirements of Reclamation law. If anything, they established a further criterion that the particular project should, besides satisfying Reclamation law, provide a basis for work relief. In return the project would be entitled to financing on the basis of a grant or loan from a relief appropriation. Reclamation projects initiated under the relief acts were later completed by regular Reclamation appropriations made on a fully reimbursable basis.

In addition to authorization of Reclamation projects under general laws, many Reclamation projects have been authorized by special acts of Congress. These acts of Congress are too numerous to quote in detail here, but generally they anchor to the requirement of basic Reclamation law requiring the cost to be returned by the beneficiaries. The special features of most of these acts have been directed to provisions for repayment that differ somewhat from the standard requirements of Reclamation law. These differences usually are in the form of an extension of the repayment period for that portion of the project to be repaid by irrigation water users.

The Flood Control Act of 1944 stated the policy of Congress "to recognize the interests and rights of the States in determining the development of watersheds within their borders and likewise their interest and rights in water conservation and control." In conformity with this policy it provided a procedure whereby both the Chief of Engineers, War Department, and the Secretary of the Interior are required to give to the affected State or States, and to each other, information developed by the investigations and opportunity for consultation regarding plans and proposals. In the event that the affected States or the Secretary of War make objections to a proposal, the project

shall not be deemed authorized in accordance with the Reclamation Project Act of 1939, as described above, but shall require an act of Congress. The Flood Control Act of 1944 also provided for construction by the Secretary of the Interior of additional irrigation works in connection with dams and reservoirs operated by the Secretary of War.

Water conservation and utility projects

Another outgrowth of the depression years was the effort of Congress to provide relief through Reclamation for distressed conditions in the Western Plains and Mountain States affected by the extreme droughts of the mid-1930's. Congress' efforts here were directed to providing for small irrigation projects, usually with only a few thousand acres or less, as contrasted with large developments authorized under the Reclamation Act. The Interior Department Appropriation Act for 1940 (53 Stat. 719) contained \$5,000,000 for water conservation and utilization projects in the Great Plains. The projects were subject to such repayment provisions as the President determined. In 1939 Congress passed the Water Conservation and Utility Project Act of August 11, 1939 (53 Stat. 1418), known as the Wheeler-Case Act.

A number of repayment contracts have been negotiated by the Bureau of Reclamation with water users' organizations for these projects. A development period of not to exceed 10 years is permissible and repayment of reimbursable costs is to be contracted in 40 annual installments. The July 16, 1943, amendment of the Wheeler-Case Act (57 Stat. 566) authorized the Secretary of the Interior, upon agreement with the Secretary of Agriculture, to designate as a project under the W. C. U. Act any project authorized for construction from appropriations under the water conservation and utility provision in the Interior Department Appropriation Act of 1940.

This 1939 act, as amended, authorized the construction of small projects on the basis of joint findings of feasibility by the Secretary of Agriculture and the Secretary of the Interior and approved by the President. The act provided originally for reimbursable appropriations combined with non-reimbursable participation by the Works Progress Administration and the Civilian Conservation Corps, thereby making projects with a high total cost per acre feasible, provided sufficient relief labor could be made available to hold the reimbursable portion to a reasonable amount. This act ordinarily would have expired with termination of

the WPA and CCC at the beginning of World War II. Congress, by the act of July 16, 1943, modified the original law to permit the completion of water conservation and utility projects which were justifiable as an aid in winning the war.

Status of construction program

The financial status of repayments on Federal Reclamation projects, as reflected in the records of the Bureau of Reclamation, is outlined in "Reclamation Repayments and Payment Schedules," historically and by description of existing contractual arrangements. The record affords a means of analysis of development, success, and difficulties for each project or major division of a project.

The following schedules at the end of this summary provide the project details on cost and repayment:

SCHEDULE I.—Repayment of Reclamation project construction costs.

SCHEDULE II.—Tentative allocations of estimated total construction costs.

SCHEDULE III.—Irrigation allocation repayment.

SCHEDULE IV.—Power allocation repayment.

SCHEDULE V.—Repayment from sources other than contracts and power revenues.

As shown in table A, "Summary of Construction Status and Reimbursability," on page xvii, the total estimated cost of the 102 projects covered by this study is \$7,853,820,000, of which \$2,962,171,000 had been spent on June 30, 1957. There are 62 projects costing \$511,250,000 which are completed insofar as present plans are approved. The construction program of the Bureau includes the other 40 projects consisting of the Missouri River Basin project, estimated to cost the Bureau of Reclamation \$3,403,867,000, Colorado River storage and 11 participating projects estimated to cost \$992,174,000, and 38 other projects, estimated to cost \$2,922,703,000. Completed projects for which rehabilitation and betterment work is scheduled are excluded from the latter group. Cost estimates for incomplete work are subject to constant revision due to changes in plans as construction begins on new sections of projects, price changes, closer approximations in estimating completion as work progresses, etc. As of June 30, 1957, the Bureau's construction program for the 38 regular projects under construction was 69.5 percent complete. The total value of completed projects, plus completed portions of other projects, equals \$2,658,001,000. In addition, \$304,170,000

COST OF PLANT, PROPERTY AND EQUIPMENT CUMULATIVE TO F.Y. 1952 THRU F.Y. 1957

IN MILLIONS OF \$

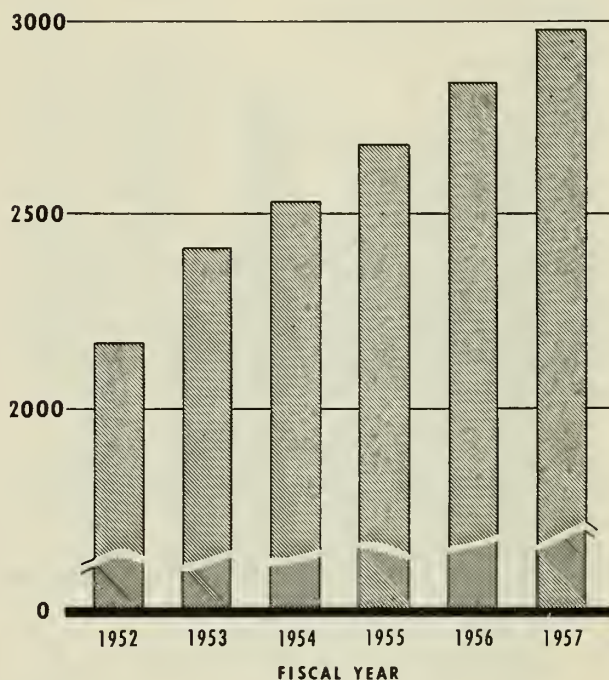


CHART A

of construction work was in process. Total amount through each of fiscal years 1952 to 1957 is illustrated in chart A.

Summary of allocation of costs

As shown by chart B, the total estimated cost of Bureau construction was allocated for rate-making and repayment purposes to the following functions, as of June 30, 1957.

		Percent
Total estimated cost-----	\$7, 853, 820, 095	100. 00
Reimbursable, subtotal-----	7, 326, 613, 501	93. 29
Irrigation-----	4, 742, 199, 114	60. 38
Commercial power-----	2, 228, 693, 040	28. 38
Municipal, industrial, and domestic water-----	167, 717, 678	2. 14
Flood control-----	25, 728, 572	. 33
Investigations-----	43, 242, 803	. 55
Preconstruction contributions, Columbia Basin----	313, 440	. 00
Recreation-----	2, 588, 300	. 03
Fish and wildlife conservation-----	2, 768, 000	. 04
Mexican Treaty service----	10, 524, 000	. 13
Not allocated-----	102, 838, 554	1. 31

		Percent
Nonreimbursable, subtotal---	\$527, 206, 594	6. 71
Navigation and flood control-----	370, 197, 173	4. 71
Irrigation-----	70, 826, 632	. 90
Fish and wildlife conservation-----	66, 412, 134	. 85
Recreation-----	8, 179, 778	. 11
Boulder City-----	3, 250, 322	. 04
Power-----	5, 204, 100	. 07
Municipal water (military)--	1, 000, 000	. 01
Highway construction-----	936, 455	. 01
Mexican Treaty service----	1, 000, 000	. 01
Columbia Basin spillway--	200, 000	. 00

As shown on schedule I, "Repayment of Reclamation Project Construction Costs," the total estimated construction cost is \$7,853,820,095, of which \$527,206,594 or 6.71 percent is nonreimbursable and 93.29 percent is reimbursable.

Nonreimbursable costs

Nonreimbursability is determined in three principal ways:

- (1) By function, according to basic statutory authority shown by table B----- \$456, 379, 962
- (2) By adjustments authorized by Congress in 1926 and similar subsequent acts, charging off specific costs for specific reasons shown in table C----- 25, 536, 432

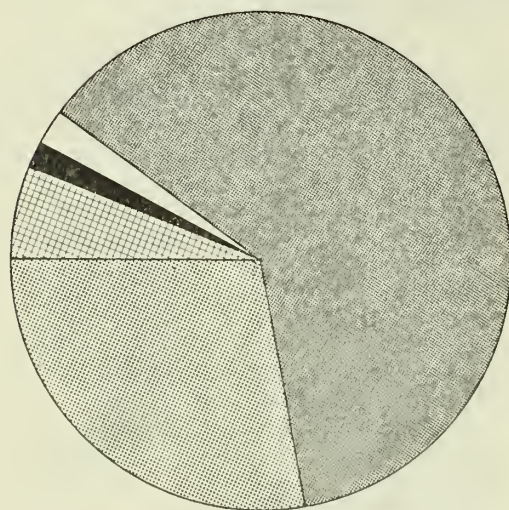
(3) By acts of Congress applying to irrigation allocations of individual projects also shown in table C-----	\$45, 290, 200
Total-----	527, 206, 594

For Missouri River Basin project, nonreimbursable costs of \$186,634,800 covering navigation and flood control allocations of Bureau of Reclamation features were authorized under the Flood Control Act of December 22, 1944. Combined with amounts for other projects shown in table B on page xviii, total nonreimbursable cost authorized by basic legislation to June 30, 1957, amounts to \$456,379,962. Costs which are nonreimbursable by congressional adjustment and those which are nonreimbursable by acts applying to project allocations to irrigation, such as the Water Conservation and Utilization acts, are shown in table C on page xix. Also included are costs authorized by Congress to be in excess of the repayment obligation of the water users.

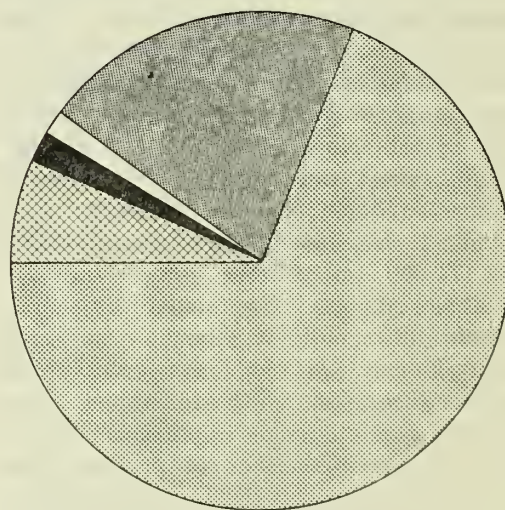
Contractual obligation of water users

The reimbursable irrigation allocation shown in schedule II, "Tentative Allocations of Estimated Total Construction Costs," is the basis for determining the repayment obligation of the water users. As shown in schedule III, "Irrigation Allo-

TENTATIVE ALLOCATIONS AND ULTIMATE REPAYMENTS OF ESTIMATED CONSTRUCTION COSTS BUREAU TOTAL F.Y. 1902 THRU F.Y. 1957



TENTATIVE ALLOCATIONS



ULTIMATE REPAYMENTS

■ IRRIGATION, ■ POWER, ■ MUNICIPAL & INDUSTRIAL WATER, □ OTHER, ▨ NONREIMBURSABLE

CHART B

FOR VALUES OF TENTATIVE ALLOCATIONS AND ULTIMATE REPAYMENTS, REFER TO TABLE D ON PAGE XX.]

WATER USERS REPAYMENT CONTRACTS CUMULATIVE TO F.Y. 1952 THRU F.Y. 1957

IN MILLIONS OF \$

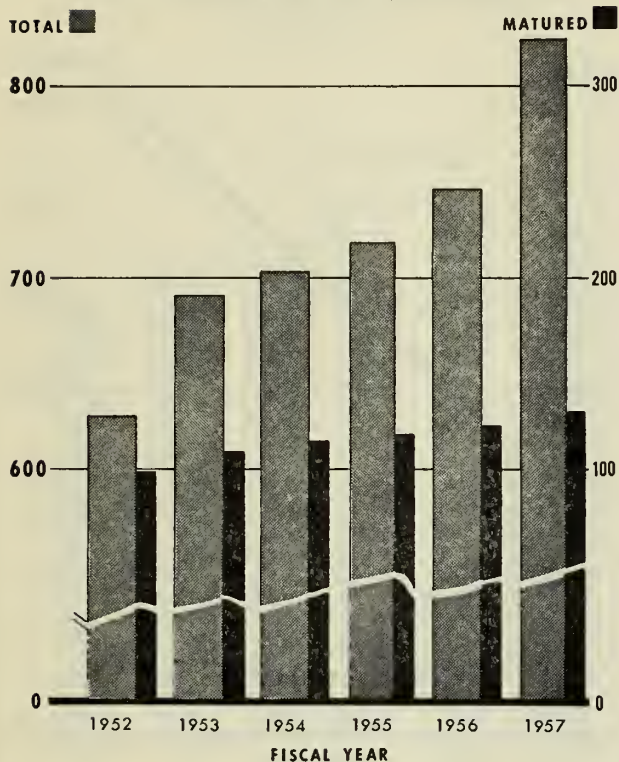


CHART C

cation Repayment," the \$824,451,095 in existing repayment contracts includes \$18,093,224 in funded operation and maintenance charges and funded interest and penalties, which the water users are obligated to repay. Also included in the water users' contracts are \$97,110,431 in obligations of municipal and other water users, who in some cases combined with the irrigation water users as contractors. Certain contracts with irrigation water users include the cost of power facilities, and power revenues are applied against the total obligation. Giving effect to power revenues, water service contracts, and other items identified as "Sources Other than Repayment Contracts" and, after allowing for minor adjustments required to bring the repayment obligations in line with construction costs, there remains \$506,415,850 in irrigation water users' contracts to be negotiated. Of this amount \$380,595,376 is for Missouri River Basin project.

Current status of repayment contracts

Of the \$824,451,095 total contracted obligation

MUNICIPAL AND INDUSTRIAL WATER REVENUES ANNUAL F.Y. 1952-F.Y. 1957

CUMULATIVE TO F.Y. 1952 THRU F.Y. 1957

IN THOUSANDS OF \$

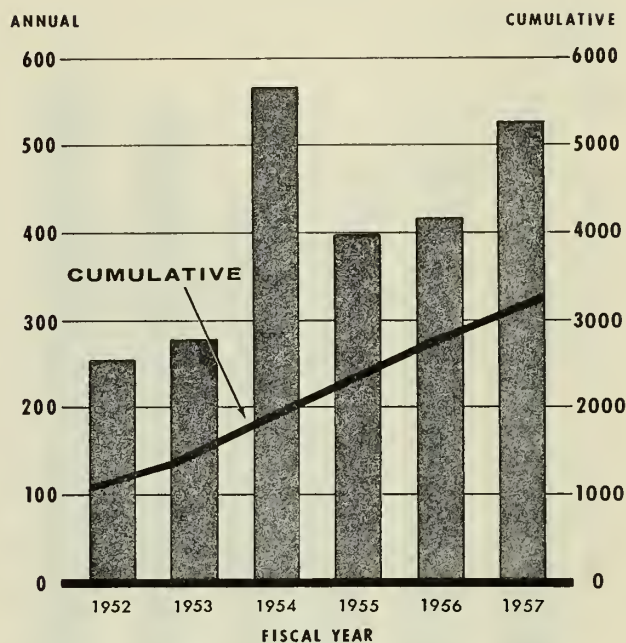


CHART D

of the water users for repayment, \$129,985,506 had become due on June 30, 1957, of which \$129,826,748 was collected (chart C). Details of these contracts are shown in schedule III. Uncollected items against these maturities were \$158,758 or 0.12 percent, to be paid after June 30, 1957. These payments are made into the Reclamation fund (table E), and become available for reappropriation by the Congress to construct future projects. Chart D depicts municipal and industrial water revenues in years 1952 through 1957.

Irrigable acreage and crop values for calendar years 1952 through 1957 are illustrated in charts E and F, respectively.

Application of power revenues to repayment

The total power investment, present and contemplated, to be repaid from power revenues for the 25 projects discussed in this volume which have power systems, is \$2,228,693,040, as shown on schedule IV, "Power Allocation Repayment." In addition to repaying the commercial power

IRRIGABLE ACREAGE
CUMULATIVE TO C. Y. 1952 THRU C. Y. 1957
 IN MILLIONS OF ACRES

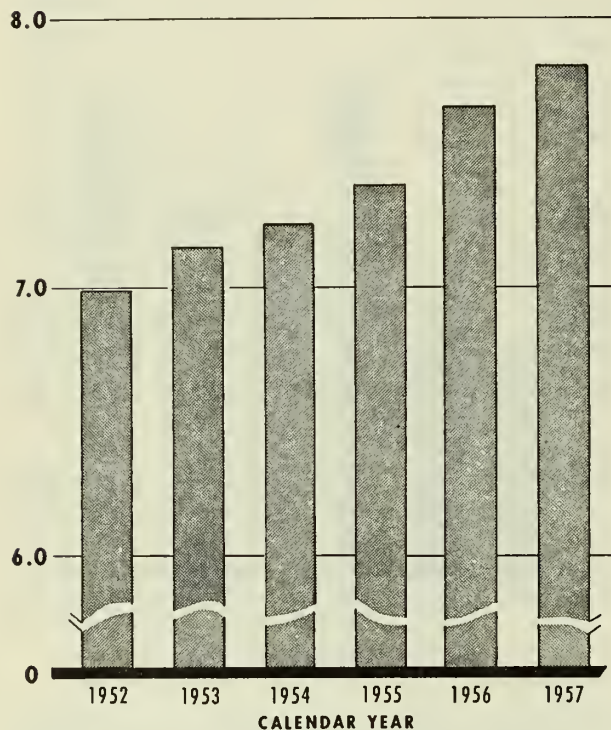


CHART E

allocation, power revenues will also be applied against the following:

(1) Irrigation allocation.....	\$3, 119, 498, 561
(2) Flood control allocation for Hoover Dam.....	25, 000, 000
(3) Servicing Mexican Treaty on Parker-Davis.....	10, 524, 000
(4) Allocations to investigations, recreation, and fish and wildlife on Missouri River Basin.....	40, 607, 100

Thus power revenues will be used to repay about \$5.4 billion out of the total reimbursable amount of \$7.3 billion or 74 percent. Power rates are established to pay the operation and maintenance expenses and interest charges as well as these construction costs. Total revenues to date are over \$582 million.

Most power revenues are also paid into the Reclamation fund (table E) and became available

CROP VALUES
ANNUAL C. Y. 1952-C. Y. 1957
CUMULATIVE TO C. Y. 1952 THRU C. Y. 1957
 IN MILLIONS OF \$

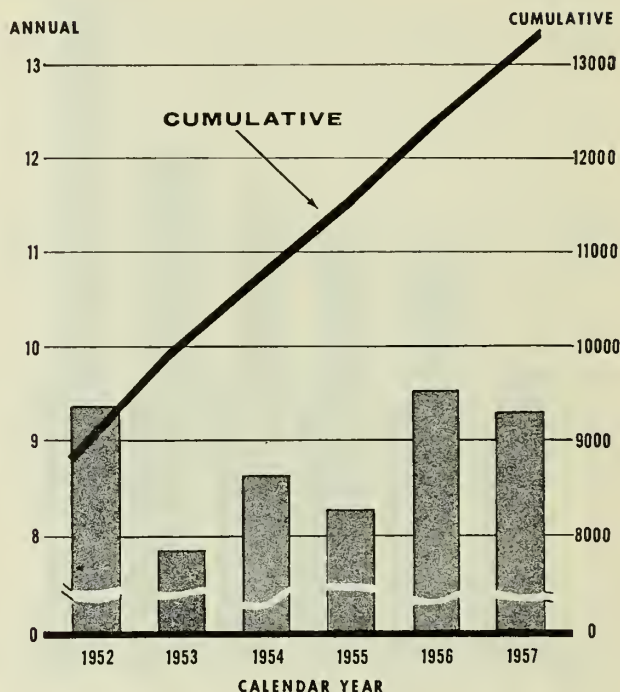
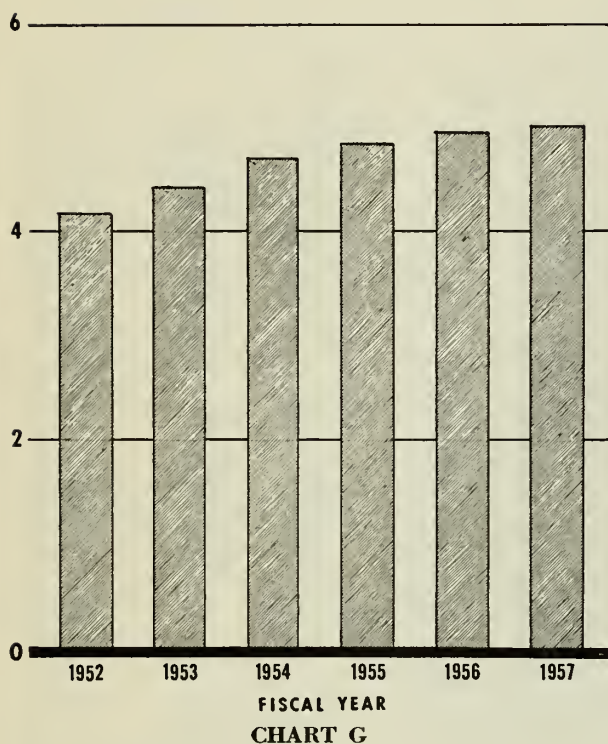


CHART F

for appropriation by Congress to construct future projects and to operate those which are in service. Revenues from Hoover powerplant are paid into the Colorado River Dam fund (table F), from which appropriations for operation and maintenance are made annually. These revenues are also used to repay, with interest, the advances made to the fund for construction of the project, to make payments in lieu of taxes to Arizona and Nevada, and to finance the Colorado River Development fund. Revenues from the Colorado River Storage project powerplants will similarly finance the Upper Colorado River Basin fund. The Fort Peck continuing fund (table G) is a revolving fund for financing the costs of operating that project, including the Corps of Engineers, and for repaying the construction costs.

Charts G and H show installed capacities and power revenues, respectively, for fiscal years 1952 through 1957.

**INSTALLED HYDROELECTRIC CAPACITY
CUMULATIVE TO F.Y. 1952 THRU F.Y. 1957
IN MILLIONS OF KW**



**POWER REVENUES
ANNUAL F.Y. 1952- F.Y. 1957
CUMULATIVE TO F.Y. 1952 THRU F.Y. 1957
IN MILLIONS OF \$**

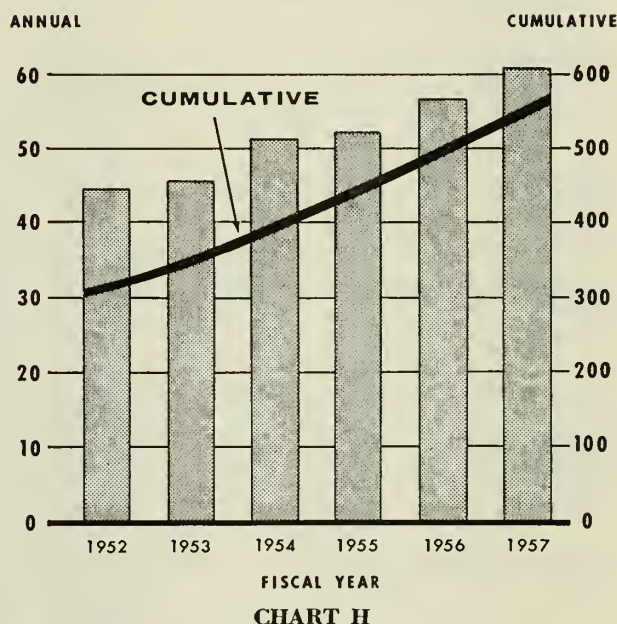


TABLE A.—Summary of construction status and reimbursability

[Unit—\$1,000]

Item	Total	Completed projects	Projects under construction		
			Regular projects	Missouri River Basin ¹	Colorado River storage and participating projects
Number of projects.....	102	62	38	1	² 1
Total estimated cost.....	\$7, 853, 820	\$535, 076	\$2, 922, 703	\$3, 403, 867	\$992, 174
Status of construction:					
Completed features.....	2, 658, 001	493, 774	1, 819, 879	344, 348	-----
Features under construction.....	304, 170	³ 17, 476	211, 416	66, 883	8, 395
Subtotal.....	2, 962, 171	511, 250	2, 031, 295	411, 231	8, 395
Balance to complete.....	4, 891, 649	³ 23, 826	891, 408	2, 992, 636	983, 779
Reimbursability:					
Reimbursable.....	7, 326, 614	421, 081	2, 753, 328	3, 165, 913	986, 292
Nonreimbursable.....	527, 206	113, 995	169, 375	237, 954	5, 882

¹Excludes costs of units being constructed by U. S. Corps of Engineers.

²Consists of 4 storage units and 11 participating projects.

³Consists of rehabilitation and betterment of existing features and completed features not included in plant in service (completed).

TABLE B.—Nonreimbursable costs authorized by basic legislation

Project	Amount	Function	Authorizing act
Boise-----	\$14, 827, 159	Flood control-----	Aug. 24, 1954. ¹
Boulder Canyon:			
All-American Canal System-----	4, 838, 760	do-----	(1).
Hoover Dam-----	3, 250, 322	Nonproject, Boulder City, costs.	June 29, 1948.
Carlsbad-----	1, 007, 612	Flood control-----	(1).
Central Valley-----	35, 684, 000	do-----	(1).
	12, 940, 000	Navigation-----	(1).
	11, 628, 000	Fish and wildlife-----	Aug. 27, 1954. ³
	215, 000	Recreation-----	Aug. 12, 1955.
Chief Joseph Dam-----	17, 500	Fish and wildlife-----	Aug. 12, 1955.
Collbran-----	100, 000	do-----	July 17, 1952. ³
	33, 000	Road construction-----	July 3, 1952. ³
Colorado River, Tex-----	12, 972, 602	Navigation and flood control--	Forest Service funds.
	4, 956, 542	Power-----	(2).
Colorado River front work and levee system.	8, 964, 115	Navigation and flood control--	Aug. 26, 1937.
Colorado River Storage-----	2, 920, 000		June 28, 1946.
	529, 000	Flood control-----	Apr. 11, 1956. ¹
	2, 433, 000	Fish and wildlife-----	Do. ³
	1, 000, 000	Recreation-----	Do.
Columbia Basin-----	200, 000	Navigation and flood control--	(1).
	208, 000	Spillway lighting-----	July 2, 1956.
Grants Pass-----	19, 669, 000	Fish and wildlife-----	Do.
Hungry Horse-----	13, 626, 000	Navigation and flood control--	June 5, 1944. ¹
Middle Rio Grande-----	27, 978	Channel rectification-----	May 17, 1950.
Minidoka-----	3, 686	Recreation (Walcott Park)---	CCC funds.
	1, 813	Electric facilities, Paul Camp--	War Dept. funds.
Missouri River Basin-----	186, 634, 800	CAA-Transmission facilities---	Air Navigation Facility funds.
	49, 188, 700	Navigation and flood control--	Dec. 22, 1944.
	1, 000, 000	Fish and wildlife-----	Do.
	1, 130, 800	Municipal water (military)---	Do.
	17, 528, 000	Recreation-----	Do.
Palisades-----	648, 000	Flood control-----	Sept. 30, 1950.
		Fish and wildlife and recreation.	Do.
Palo Verde-----	3, 681, 593	Flood control-----	Aug. 31, 1954.
Parker-Davis-----	903, 455	Highway construction-----	July 29, 1946.
Pine River-----	1, 948, 526	Flood control-----	May 10, 1939, June 18, 1940, and Oct. 9, 1940.
Rio Grande-----	1, 519, 654	do-----	June 16, 1933, June 19, 1934.
	1, 000, 000	Servicing Mexican Treaty---	Mar. 4, 1907.
	242, 059	Power, legal costs-----	Pending.
Rogue River Basin-----	354, 000	Flood control-----	Aug. 20, 1954. ¹
	96, 000	Fish and wildlife-----	Aug. 20, 1954. ³
	156, 000	Recreation-----	Aug. 20, 1954.
San Luis Valley (Platoro unit)-----	1, 548, 352	Flood control-----	(1).
Santa Maria-----	3, 013, 000	do-----	Sept. 3, 1954. ¹
Seofield-----	393, 000	do-----	(1).
Solano-----	1, 132, 000	do-----	Nov. 11, 1948. ¹
Ventura River-----	100, 000	Recreation-----	Mar. 1, 1956.
Vermejo-----	55, 000	Fish and wildlife-----	Do. ³
	198, 000	Flood control-----	Sept. 27, 1950. ¹
W. C. Austin-----	1, 130, 000	do-----	July 12, 1943. ¹
Washita Basin-----	15, 417, 000	do-----	Feb. 25, 1956. ¹
	839, 000	Fish and wildlife-----	Do. ³
	549, 000	Recreation-----	Do.
Weber Basin-----	7, 393, 000	Flood control-----	Aug. 29, 1949. ¹
	1, 730, 000	Fish and wildlife-----	Do. ³
	3, 568, 000	Recreation-----	Aug. 29, 1949.
Yakima-----	1, 229, 934	Fish and wildlife-----	June 12, 1948. ³
	456, 379, 962		

¹ The Reclamation Act of 1939 (Aug. 4, 1939) provided in sec. 9 (b) that charges allocated to navigation and flood control would be nonreimbursable.

² Appropriation acts of May 9, 1938; May 10, 1939; June 18, 1940; Oct. 9, 1940; and Apr. 25, 1945, as authorized by the act of Aug. 26, 1937.

³ The amendment of Aug. 14, 1946, to the Wildlife, Fish and Game Act provided that charges allocated to fish and wildlife would be nonreimbursable.

TABLE C.—Irrigation construction costs found non-reimbursable or limited by Congress, Omnibus Adjustment Act of 1926, and other acts

Project	Amount	Authorizing act
CHARGEOFFS BY CONGRESS		
Belle Fourche-----	\$1, 479, 300	May 25, 1926; Oct. 27, 1949.
Bitter Root-----	2, 310	Jan. 30, 1954.
Boise-----	82, 394	May 25, 1926.
Buford-Trenton (original).-----	221, 424	May 26, 1926.
Carlsbad-----	374, 884	May 25, 1926.
Garden City-----	334, 475	June 5, 1920.
Grand Valley-----	1, 839, 426	May 25, 1926.
Huntley-----	62, 050	Do.
King Hill-----	1, 877, 732	May 25, 1926; June 18, 1934.
Klamath-----	75, 153	May 25, 1926.
Lower Yellowstone--	19, 590	Aug. 2, 1951.
Milk River-----	391, 789	May 25, 1926; July 4, 1948.
Minidoka-----	2, 288	May 25, 1926; July 3, 1930; June 23, 1952.
Newlands-----	2, 282, 398	May 25, 1926.
North Platte-----	4, 462, 070	Do.
Okanogan-----	¹ 615, 068	Do.
	978, 504	May 25, 1926; May 25, 1928; Jan. 30, 1954.
Rio Grande-----	352, 387	May 25, 1926.
Riverton-----	² 608, 034	June 23, 1952.
Shoshone-----	1, 960, 619	May 25, 1926; May 6, 1949; July 14, 1954.
Sun River-----	489, 662	May 25, 1926; July 31, 1953.
Umatilla-----	2, 308, 811	May 25, 1926; June 18, 1954.
Uncompahgre-----	2, 896, 634	May 25, 1926; May 6, 1949.
Williston-----	409, 095	May 26, 1926.
Yakima-----	4, 215	May 25, 1926.
Yuma-----	383, 738	Sept. 2, 1950.
Yuma Auxiliary-----	1, 022, 382	June 13, 1949; Sept. 2, 1950.
Subtotal-----	25, 536, 432	
SPECIAL ACTS		
Boulder Canyon, All-American Canal System.-----	3, 260, 650	Aug. 31, 1951.
Buford-Trenton-----	334, 825	July 31, 1953.
Deschutes-----	312, 684	SSS. ⁴
	231, 287	CPS. ⁴
Gila-----	³ 6, 094, 511	Jan. 28, 1956.
	372, 845	Air Force funds. ⁴
Hondo-----	339, 377	Suspended—Abandoned plant. ⁵
Middle Rio Grande--	2, 307, 000	May 17, 1950 (Indian lands).

See footnotes at end of table.

TABLE C.—Irrigation construction costs found non-reimbursable or limited by Congress, Omnibus Adjustment Act of 1926, and other acts—Con.

Project	Amount	Authorizing act
SPECIAL ACTS—CON.		
Rio Grande-----	\$55, 989	NIRA funds ⁴ (fence).
Shoshone-----	46, 000	Aug. 13, 1953.
Truckee storage-----	81, 297	May 29, 1941.
Tucumcari-----	10, 231, 959	Apr. 9, 1938.
Vermejo-----	461, 388	Sept. ¹ 27, ¹ 1950.
W. C. Austin-----	8, 276, 049	July 12, 1943.
Subtotal-----	32, 405, 861	
WATER CONSERVATION PROJECT COSTS IN EXCESS OF REIMBURSABILITY		
Balmorhea-----	181, 698	W. C. U. acts. ⁶
Buffalo Rapids-----	3, 444, 728	Do.
Buford-Trenton-----	391, 442	Do.
Intake-----	47, 313	Do.
Mancos-----	3, 029, 764	Do.
Milk River-----	85, 097	Do.
Mirage Flats-----	2, 219, 708	Do.
Missoula Valley-----	233, 321	Do.
Newton-----	362, 437	Do.
Rathdrum Prairie--	173, 951	Do.
Seofield-----	298, 081	Do.
Subtotal-----	10, 467, 540	
CIVILIAN CONSERVATION CORPS		
Carlsbad-----	181, 829	CCC funds. ⁴
Deschutes-----	1, 073, 787	Do.
Grand Valley-----	291, 300	Do.
Huntley-----	223, 564	Do.
Milk River-----	26, 585	Do.
Moon Lake-----	200, 500	Do.
Ogden River-----	278, 000	Do.
Provo River-----	58, 334	Do.
Rio Grande-----	23, 500	Do.
Sanpete-----	59, 400	Do.
Subtotal-----	2, 416, 799	
Total-----	70, 826, 632	

¹ Excludes \$49,856 for Secondary Investigation authorized by act of May 25, 1926.² Excludes \$8,177 for cost of lateral construction work on Midvale facilities, act of Aug. 13, 1953 (67 Stat. 566).³ Estimated.⁴ The Acting Attorney General's decision of Sept. 7, 1937, holds that a Federal Reclamation project may be constructed, partly by the use of money from the Reclamation fund and partly with nonreimbursable funds from other sources.⁵ Contract of Sept. 2, 1922, with Hondo Irrigation Association.⁶ These projects fall under the two W. C. U. acts: (1) Water Conservation and Utilization Act (Wheeler-Case) of Aug. 11, 1939 (53 Stat. 1418), and (2) Water Conservation and Utility (Great Plains) provision of the Interior Department Appropriation Act of 1940, May 10, 1939 (53 Stat. 685).

TABLE D.—Allocation and ultimate repayment of total reimbursable costs

[Unit—\$1,000]

Allocation		Ultimate repayment			
Item	Amount	Water users		Commercial power revenues	Other ¹
		Repayment contracts	Service contracts and revenues		
Total.....	\$7, 853, 820	\$1, 301, 638	\$478, 603	\$5, 426, 805	\$646, 774
Irrigation.....	4, 742, 199	1, 223, 217	396, 807	3, 119, 499	2, 676
Commercial Power.....	2, 228, 693	5, 510		2, 223, 183	
Municipal and Industrial Water.....	167, 718	72, 911	² 81, 796		13, 011
Other allocations.....	85, 165			84, 123	1, 042
Not allocated.....	102, 838				102, 838
Nonreimbursable.....	527, 207				527, 207

¹ Contributions, items not allocated and nonreimbursable.² Missouri River Basin project, Central Valley project, and Colorado River Storage project.

TABLE E.—Status of the reclamation fund, June 30, 1957

	Amount	Percent
RECEIPTS		
Accretions:		
Sale of public lands.....	\$130, 220, 615	10. 72
Royalties from oil leases.....	340, 134, 037	27. 99
Royalties and rentals from potassium leases.....	12, 447, 078	1. 02
Federal waterpower licenses.....	1, 517, 237	. 13
Timber sales, etc.....	12, 491	
Subtotal accretions.....	484, 331, 458	39. 86
Collections:		
Construction repayments.....	124, 187, 952	10. 22
Operation and maintenance repayments.....	63, 454, 897	5. 22
Power revenues.....	393, 689, 317	32. 40
Water rental.....	54, 475, 822	4. 48
Unclassified revenues.....	32, 998, 768	2. 72
Subtotal collections.....	668, 806, 756	55. 04
Reimbursements:		
Office of Indian Affairs.....	2, 997, 829	. 25
Colorado River front work and levee system.....	829, 976	. 07
Intra-Bureau financing.....	33, 047, 615	2. 72
Loans to fund.....	25, 000, 000	2. 06
Total receipts.....	1, 215, 013, 634	100. 00

TABLE E.—Status of the reclamation fund, June 30, 1957—Continued

	Amount	Percent
EXPENSES		
Gross annual allotments and appropriations:		
Construction and rehabilitation.....	\$773, 629, 378	69. 32
Operation and maintenance.....	214, 937, 903	19. 26
General investigations.....	53, 246, 795	4. 77
General administrative expenses.....	64, 404, 416	5. 77
Emergency fund.....	2, 900, 000	. 26
Subtotal gross appropriations.....	1, 109, 118, 492	99. 38
Permanent appropriations.....	1, 214, 299	. 11
Payment of claims, etc.....	1, 658, 083	. 15
Lapsed and expired appropriations returned to Treasury through fiscal year 1957.....	(20, 937, 639)	(1. 88)
Repayment of loans.....	25, 000, 000	2. 24
Total expenses.....	1, 116, 053, 235	100. 00
Surplus (unallotted and unappropriated).....	98, 960, 399	

TABLE F.—*Status of the Colorado River Dam fund, June 30, 1957*

[Boulder Canyon project]

Receipts and expenses	Hoover Dam			All-American Canal	
	Detail	Amount	Percent	Amount	Percent
RECEIPTS					
Advances from congressional appropriations-----		\$160, 441, 228. 83	53. 1	\$57, 859, 193. 24	94. 4
Receipts paid into the fund-----	\$142, 568, 834. 74			3, 416, 538. 37	5. 6
Less: Receipts refunded-----	891, 080. 13				
		141, 677, 754. 61	46. 9	-----	-----
Total receipts-----		302, 118, 983. 44	100. 0	61, 275, 731. 61	100. 0
EXPENSES					
Disbursements from advances-----		160, 393, 710. 79	53. 4	57, 859, 193. 24	94. 7
Interest on advances-----		70, 129, 532. 67	23. 4	-----	-----
Appropriated for operation and maintenance-----	26, 945, 518. 00			-----	-----
Rescission of operation and maintenance-----	1, 665, 993. 69			-----	-----
		25, 279, 524. 31	8. 4	-----	-----
Payments to States of Arizona and Nevada-----		11, 400, 000. 00	3. 8	-----	-----
Payments to Colorado River development fund-----		9, 500, 000. 00	3. 2	-----	-----
Repayment of advances-----		23, 505, 057. 95	7. 8	3, 252, 000. 00	5. 3
Total expenses-----		300, 207, 825. 72	100. 0	61, 111, 193. 24	100. 0
Surplus (unallotted and unappropriated)-----		1, 911, 157. 72	-----	164, 538. 37	-----

TABLE G.—*Status of the Fort Peck continuing fund, to June 30, 1957*

Receipts and expenses	Amount	Percent
RECEIPTS		
Collections: Power revenues-----	\$14, 745, 349	99. 85
Reimbursements-----	21, 461	. 15
Total receipts-----	14, 766, 810	100. 00
EXPENSES		
Annual allotments:		
Continuing fund for emergency expenses-----	6, 183, 571	42. 79
Power revenues returned to Treasury-----	8, 266, 542	57. 21
Total expenses-----	14, 450, 113	100. 00
Surplus (unallotted reserve)-----	316, 697	-----

SCHEDULE I.—*Repayment of reclamation project construction costs, status for fiscal year 1958*

Project and State	Actual cost, June 30, 1957, plant, property, and equipment	Final cost—estimated or actual			Repaid to June 30, 1957			
		Total	Nonreim- bursable or excess	Reimbursable	Matured re- payment contracts	Power revenue	Other sources	Total
Total, Bureau of Reclamation...	\$2,962,170,706	\$7,853,820,095	\$527,206,594	\$7,326,613,501	\$129,985,508	\$189,134,119	\$36,656,054	\$355,775,681
Arnold, Oreg.	(2)	70,000		70,000	32,886			32,886
Austin, W. C., Okla.	12,246,811	12,246,811	9,406,049	2,840,762	572,523		17,271	589,794
Avondale, Idaho.	244,424	244,424		244,424				24,201
Baker, Oreg.	225,015	281,589		281,589	118,276		5,059	123,335
Balmorhea, Tex.	406,533	406,533	181,698	224,835	24,201			24,201
Belle Fourche, S. Dak.	5,038,107	5,038,107	1,479,300	3,558,807	1,550,114		5,325	1,555,439
Bitter Root, Mont.	1,089,426	1,257,124	2,310	1,254,814	382,925			382,925
Boise, Idaho-Oreg.	64,826,827	66,882,248	14,909,553	51,972,695	12,592,772	2,829,701	764,108	16,186,581
Boulder Canyon, Ariz.-Calif.-Nev.: All-American Canal system...	60,738,412	68,344,647	8,099,410	60,245,237	973,605		231,609	1,205,214
Hoover Dam and powerplant...	167,720,121	174,205,934	3,250,322	170,955,612		17,132,668		17,132,668
Buffalo Rapids, Mont.	4,924,968	5,092,233	3,444,728	1,647,505	66,300		21,505	87,805
Buford-Trenton (old), N. Dak.	223,423	223,423	221,424	1,999			1,999	1,999
Buford-Trenton, N. Dak.	1,090,261	1,320,087	726,267	593,820			1,291	1,800
Burnt River, Oreg.	601,026	601,026		601,026	269,893			271,184
Cachuma, Calif.	43,147,124	43,360,456		43,360,456	2,557		208,972	211,529
Canadian River, Tex.		95,500,000		95,500,000				
Carlsbad, N. Mex.	5,239,592	5,279,091	1,564,325	3,714,766	1,853,197		41,401	1,894,598
Central Valley, Calif.	531,014,714	823,497,385	60,467,000	763,030,385	140,502	66,864,568	1,779,991	68,785,061
Chief Joseph Dam, Wash.	1,134,881	3,915,000	17,500	3,897,500	128			128
Collbran, Colo.	220,529	14,100,000	133,000	14,067,000				
Colorado-Big Thompson, Colo.	158,231,831	158,998,545		158,998,545		5,092,710	1,499,932	6,592,642
Colorado River, Tex.	23,439,644	23,439,644	17,929,144	5,510,500				
Colorado River front work and levee system, Ariz.-Calif.-Nev.	9,692,687	9,692,687	8,964,115	728,572				
Colorado River storage and participat- ing projects.	8,394,711	992,174,000	5,882,000	986,292,000				
Columbia Basin, Wash.	504,851,705	756,055,000	1,200,000	754,855,000	68,230	59,601,377	204,385	59,873,992
Crescent Lake Dam, Oreg.	320,253	320,000		320,000				
Dalton Gardens, Idaho.	258,660	270,200		270,200				
Deschutes, Oreg.	13,022,832	14,136,214	1,617,758	12,518,456	296,530		235,731	532,261
Eden, Wyo.	6,365,665	8,073,822		8,073,822			785	785
Eklutna, Alaska.	32,434,623	32,759,692		32,759,692		768,189		768,189
Falcon, Tex.	(2)							
Fort Peck, Mont.-N. Dak.	12,179,744	23,876,607		23,876,607			27,382	27,382
Fort Sumner, N. Mex.	2,371,986	2,372,408		2,372,408	121,608		175	121,783
Frenchtown, N. Mex.	279,321	279,321		279,321	68,225			68,225
Fruitgroves Dam, Colo.	200,309	200,309		200,309	60,843		2,500	63,343
Garden City, Kans.	334,475	334,475	334,475					
Gila, Ariz.	45,767,652	51,657,325	6,467,356	45,189,969	23,750		255,082	278,832
Grand Valley, Colo.	6,171,652	7,452,543	2,130,726	5,321,817	1,520,142		268,537	1,788,679
Grants Pass, Oreg.	2,223,533	208,000		208,000	12,500			12,500
Hondo, N. Mex.	339,377	339,377		339,377				
Humboldt, Nev.	1,284,096	1,337,321		1,337,321	472,386		28,517	500,903
Hungry Horse, Mont.	101,645,528	101,711,192	19,669,000	82,042,192		4,521,992	1,511	4,523,503
Huntley, Mont.	1,775,175	1,845,066	285,614	1,559,452	1,067,668		16,662	1,084,320
Hyrum, Utah	953,854	953,854		953,854	291,934		11,885	303,819
Intake, Mont.	94,213	94,213	47,313	46,900	4,706			4,706
Kendrick, Wyo.	30,478,822	31,390,761		31,390,761		4,439,118	26,479	4,465,597
King Hill, Idaho.	1,877,732	1,877,732	1,877,732					
Klamath, Calif.-Oreg.	14,530,044	21,060,014	94,743	20,965,271	3,153,513		7,828,140	10,981,653
Lewisville Orchards, Idaho.	2,484,397	2,484,397		2,484,397	84,929			84,929
Lower Yellowstone, Mont.-N. Dak.	3,585,927	3,633,219	391,789	3,241,430	2,519,871		42,986	2,562,857
Mancos, Colo.	3,914,818	3,914,818	3,029,764	885,054	45,000		4,261	49,261
Michaud Flats, Idaho.	2,017,132	4,652,700		4,652,700				
Middle Rio Grande, N. Mex.	20,218,503	26,373,000	15,933,000	10,440,000				
Milk River, Mont.	9,612,175	9,879,715	2,394,080	7,485,635	1,352,696		85,573	1,438,269
Minidoka, Idaho-Wyo.	33,075,694	36,775,921	35,765	36,740,156	17,048,018	4,508,712	2,957,179	24,513,909
Mirage Flats, Nebr.	3,061,626	3,061,626	2,219,708	841,918	42,780		4,733	47,513
Missoula Valley, Mont.	1,278,320	278,321	233,321	45,000	844			844
Missouri River Basin	411,230,980	3,403,866,810	237,854,300	3,165,912,510	85			85
Moon Lake, Utah	1,799,859	1,799,859	200,500	1,599,359	557,294		8,093	565,387
Newlands, Nev.	7,895,021	7,895,022	4,462,070	3,432,952	2,791,864		34,053	2,825,917
Newton, Utah	712,592	712,592	362,437	350,155	78,750		155	78,905
North Platte, Nebr.-Wyo.	24,184,396	26,367,311	615,068	25,752,243	16,470,247	4,346,196	132,046	20,948,489
Ochoco, Oreg.	(2)							
Ogden River, Utah	5,000,984	5,000,984	278,000	4,722,984	1,344,814		12,887	1,357,701
Okanogan, Wash.	1,505,570	1,602,946	978,504	624,442	250,504		58,186	308,504
Orland, Calif.	2,643,161	3,333,870		3,333,870	1,610,362		24,160	1,634,522
Owyhee, Oreg.-Idaho.	19,276,333	19,398,775		19,398,775	2,517,255		85,500	2,602,755
Palisades, Idaho-Wyo.	58,788,943	62,500,000	18,176,000	44,324,000			22,353	246,839
Palo Verde, Ariz.-Calif.	3,407,385	5,356,933	3,681,593	1,675,000	10,000			10,000
Paonia, Colo.	1,751,955	(2)						
Parker-Davis, Ariz.-Calif.-Nev.	140,878,522	142,254,735	903,455	141,351,280		12,859,884	13,011,227	25,871,111
Pine River, Colo.	3,469,877	3,469,877	1,948,526	1,521,351	329,180		25,566	354,746
Preston Bench, Idaho		450,100		450,100				
Provo River, Utah	32,967,077	34,020,266	58,334	33,961,932	3,419,305		90,239	3,509,544
Rapid Valley, S. Dak.	920,223	927,412		927,412	125,000			125,000
Rathdrum Prairie, Idaho.	582,821	1,029,860	173,951	855,909	65,906			65,906
Rio Grande, N. Mex.-Tex.	27,348,377	27,407,815	3,193,589	24,214,226	7,243,011	225,903	491,545	7,960,459
Riverton, Wyo.	22,170,654	30,156,592	608,034	29,548,558	665,450	498,769	50,067	1,214,286
Rogue River Basin, Oreg.	2,600,671	22,900,000	606,000	22,294,000			4,521	4,521
Salt River, Ariz.	20,077,508	36,077,508		36,077,508	13,981,110		2,312,097	16,293,207
San Luis Valley, Colo.	3,870,879	3,870,879	1,548,352	2,322,527				
Sanpete, Utah	433,940	433,940	59,400	374,540	156,520		1,164	157,684
Santa Maria, Calif.	4,097,011	15,058,000	3,013,000	12,045,000				

See footnotes at end of table.

SCHEDULE I.—*Repayment of reclamation project construction costs, status for fiscal year 1958—Continued*

Project and State	Actual cost, June 30, 1957, plant, property, and equipment	Final cost—estimated or actual			Repaid to June 30, 1957			
		Total	Nonreim- bursable or excess	Reimbursable	Matured re- payment contracts	Power revenue	Other sources	Total
Scofield, Utah	\$943,837	\$943,837	\$691,081	\$252,756	\$85,000		\$1,107	\$86,107
Shoshone, Wyo.-Mont	21,353,927	24,334,111	2,006,619	22,327,492	2,729,008	\$3,535,133	241,069	6,505,210
Solano, Calif	29,824,174	52,410,000	1,132,000	51,278,000				
Strawberry Valley, Utah	3,485,419	3,485,419		3,485,419	2,673,893		254,185	2,928,078
Sun River, Mont	10,077,304	10,393,069	489,662	9,903,407	1,762,524		91,109	1,853,633
Truckee storage, Nev.-Calif	1,092,423	1,092,423	81,297	1,011,126	350,340		21,958	372,298
Tucumcari, N. Mex	15,474,082	15,474,082	10,231,959	5,242,123	45,856		15,043	60,899
Umatilla, Oreg	5,218,460	5,236,948	2,308,811	2,928,137	525,298		116,996	642,294
Uncompahgre, Colo	8,965,959	8,965,959	2,896,634	6,069,325	1,266,838		25,601	1,292,439
Vale, Oreg	4,866,824	4,866,824		4,866,824	546,641		44,723	591,364
Ventura River, Calif	6,260,251	27,700,000	100,000	27,600,000			676,983	676,983
Vermejo, N. Mex	2,494,996	2,743,680	714,388	2,029,292				
Washita Basin, Okla	713,845	40,300,000	16,805,000	23,495,000				
Weber Basin, Utah	26,587,964	70,523,000	12,691,000	57,832,000	1,892,136		224,900	2,117,036
Weber River, Utah	2,724,487	2,724,487		2,724,487			45,911	45,911
Williston, N. Dak	409,095	409,095	409,095					
Yakima, Wash	59,901,662	61,781,410	1,234,149	60,547,261	13,903,720	823,885	827,416	15,555,021
Yuma, Ariz.-Calif	7,317,531	7,480,803	383,738	7,097,065	5,184,036	860,828	481,248	6,526,112
Yuma Auxiliary, Ariz	1,142,817	1,143,045	1,022,382	120,663	567,695		641,190	1,208,885

¹ Excludes loan program \$30,439, and nonproject property \$3,041,095.² Deferred maintenance only.³ Constructed by International Boundary and Water Commission.⁴ Excludes U. S. Corps of Engineers features.⁵ Participating project. Included in Colorado River storage project.

SCHEDULE II.—*Tentative allocations of estimated total construction costs, status for fiscal year 1958*

Project and State	Total estimated cost	Reimbursable costs				Nonreimbursable and excess costs			
		Irrigation	Commercial power	Municipal and industrial water	Investigations and other ¹	Irrigation	Navigation and flood control	Fish and wildlife	Recreation and other ²
Total, Reclamation projects.	\$7,853,820,095	\$4,742,199,114	\$2,228,693,040	\$167,717,678	\$188,003,669	\$70,826,632	\$370,197,173	\$66,412,134	\$19,770,655
Arnold, Oreg.	70,000	70,000							
Austin, W. C., Okla.	12,246,811	1,760,762		1,080,000		8,276,049	1,130,000		
Avondale, Idaho	244,424	244,424							
Baker, Oreg.	281,589	281,589							
Balmorhea, Tex.	406,533	224,835					181,698		
Belle Fourche, S. Dak.	5,038,107	3,558,807				1,479,300			
Bitter Root, Mont.	1,257,124	1,254,814				2,310			
Boise, Idaho-Oreg.	66,882,248	47,018,695	4,954,000			82,394	14,827,159		
Boulder Canyon, Ariz.-Calif.-Nev.									
All-American Canal system.	68,344,647	59,779,594		465,643		3,260,650	4,838,760		
Hoover Dam and power plant.	174,205,934		145,955,612		a 25,000,000				a 3,250,322
Buffalo Rapids, Mont.	5,092,233	1,647,505				3,444,728			
Buford-Trenton (old), N. Dak.	223,423	1,999				221,424			
Buford, Trenton, N. Dak.	1,320,087	593,820				726,267			
Burnt River, Oreg.	601,026	601,026							
Cachuma, Calif.	43,360,456	43,360,456							
Canadian River, Tex.	95,500,000				b 95,500,000				
Carlsbad, N. Mex.	5,279,091	3,714,766				556,713	1,007,612		
Central Valley, Calif.	823,497,385	450,603,917	292,037,000	17,419,000	c 2,737,000 d 233,468		48,624,000	11,628,000	215,000
Chief Joseph Dam, Wash.	3,915,000	3,897,500						17,500	
Collbran, Colo.	14,190,000	4,162,000	9,791,000		104,000			100,000	b 33,000
Colorado-Big Thompson, Colo.	158,998,545	100,661,583	56,981,876		d 1,355,086				
Colorado River, Tex.	23,439,644		5,510,500				12,972,602		e 4,956,542
Colorado River front work and levee system, Ariz.-Calif.-Nev.	9,692,687						8,964,115		
Colorado River storage and participating projects.	992,174,000	272,867,000	658,160,000	44,419,000	f 5,750,000 5,096,000 313,440		2,920,000	529,000	2,433,000
Columbia Basin, Wash.	756,055,000	562,236,700	192,304,860			1,000,000			d 200,000
Crescent Lake Dam, Oreg.	320,000	320,000							
Dalton Gardens, Idaho	270,200	270,200							
Deschutes, Oreg.	14,136,214	12,518,456				1,617,758			
Eden, Wyo.	8,073,822	8,055,834			17,988				
Eklutna, Alaska	32,759,692		32,759,692						
Falcon, Tex. ³									
Fort Peck, Mont.-N. Dak.	23,876,607		23,876,607						
Fort Sumner, N. Mex.	2,372,408	2,372,408							
Frenchtown, Mont.	279,321	279,321							
Fruitgrowers Dam, Colo.	200,309	200,309							
Garden City, Kans.	334,475					334,475			
Gila, Ariz.	51,657,325	45,189,969				6,467,356			
Grand Valley, Colo.	7,452,543	5,321,817				2,130,726			
Grants Pass, Oreg.	208,000							208,000	
Hondo, N. Mex.	339,377					339,377			
Humboldt, Nev.	1,337,321	1,337,321							
Hungry Horse, Mont.	101,711,192		82,042,192				19,669,000		
Huntley, Mont.	1,845,066	1,559,452				285,614			
Hyrum, Utah	953,854	953,854							
Intake, Mont.	94,213	46,900				47,313			
Kendrick, Wyo.	31,390,761	15,115,827	16,274,934						
King Hill, Idaho	1,877,732					1,877,732			
Klamath, Calif.-Oreg.	21,060,014	20,965,271				94,743			
Lewiston Orchards, Idaho	2,484,397	1,438,681		1,045,716					
Lower Yellowstone, Mont.-N. Dak.									
Dak.	3,633,219	3,241,430				391,789			
Manco, Colo.	3,914,818	885,054				3,029,764			
Michaud Flats, Idaho	4,652,700	4,652,700							
Middle Rio Grande, N. Mex.	26,373,000	10,440,000				2,307,000	13,626,000		
Milk River, Mont.	9,879,715	7,389,635		96,000		2,394,080			
Minidoka, Idaho-Wyo.	36,775,921	33,904,571	2,835,585			2,288			33,477
Mirage Flats, Nebr.	3,061,626	841,918				2,219,708			
Missoula Valley, Mont.	278,321	45,000				233,321			
Missouri River Basin, various ⁴	3,403,866,810	2,555,795,200	506,641,510	19,958,400	f 2,588,300 38,018,800		186,634,800	49,188,700	f 1,130,800 1,000,000
Future additions.			42,910,300						
Moon Lake, Utah	1,799,859	1,599,359				200,500			
Newlands, Nev.	7,895,022	3,432,952				4,462,070			
Newton, Utah	712,592	350,155				362,437			
North Platte, Nebr.-Wyo.	26,367,311	23,532,020	2,220,223			615,068			
Ochoco, Oreg.									
Ogden River, Utah	5,000,984	4,722,984				278,000			
Okanogan, Wash.	1,602,946	624,442				978,504			
Orland, Calif.	3,333,870	3,333,870							
Owhee, Oreg.-Idaho	19,398,775	19,398,775							
Pallsades, Idaho-Wyo.	62,500,000	27,067,090	17,256,910				17,528,000	648,000	
Palo Verde, Ariz.-Calif.	5,356,593	1,675,000					3,681,593		
Paonia, Colo. ⁵									
Parker-Davis, Ariz.-Calif.-Nev.	142,254,735	11,817,889	105,998,164	g 13,011,227	h 10,524,000				i 903,455
Pine River, Colo.	3,469,877	1,521,351					1,948,526		
Preston Bench, Idaho	450,100	450,100							
Provo River, Utah	34,020,266	8,528,860	1,025,000	24,408,072		58,334			
Rapid Valley, S. Dak.	927,412	427,412		500,000					

See footnotes at end of table.

SCHEDULE II.—*Tentative allocations of estimated total construction costs, status for fiscal year 1958—Con.*

Project and State	Total estimated cost	Reimbursable				Nonreimbursable and excess costs			
		Irrigation	Commercial power	Municipal and industrial water	Investigations and other ¹	Irrigation	Navigation and flood control	Fish and wildlife	Recreation and other ²
Rathdrum Prairie, Idaho.....	\$1,029,860	\$855,909				\$173,951			
Rio Grande, Tex.-N. Mex.....	27,407,815	14,215,945	\$9,998,281			431,876	\$1,519,654		* \$1,242,059
Riverton, Wyo.....	30,156,592	29,076,265	472,293			608,034			
Rogue River Basin, Oreg.....	22,900,000	14,033,000	8,261,000				354,000	\$96,000	156,000
Salt River, Ariz.....	36,077,508	36,077,508							
San Luis Valley, Colo. (Platoro).....	3,870,879	2,322,527					1,548,352		
Sanpete, Utah.....	433,940	374,540				59,400			
Santa Maria, Calif.....	15,068,000	12,045,000					3,013,000		
Scofield, Utah.....	943,837	215,741					393,000		
Shoshone, Wyo.-Mont.....	24,334,111	18,123,191	4,204,301			2,006,619			
Soiano, Calif.....	52,410,000	48,066,300	113,000	\$3,098,700			1,132,000		
Strawberry Valley, Utah.....	3,485,419	3,485,419							
Sun River, Mont.....	10,393,069	9,903,407				489,662			
Truckee Storage, Nev.-Calif.....	1,092,423	1,011,126				81,297			
Tucumcari, N. Mex.....	15,474,082	5,242,123				10,231,959			
Umatilla, Oreg.....	5,236,948	2,928,137				2,308,811			
Uncompahgre, Colo.....	8,965,959	6,069,325				2,896,634			
Vale, Oreg.....	4,866,824	4,866,824							
Ventura River, Calif.....	27,700,000	15,823,080		11,776,920					100,000
Vermejo, N. Mex.....	2,743,680	2,029,292				461,388	55,000	198,000	
Washita Basin, Okla.....	40,300,000	9,698,000		13,797,000			15,417,000	839,000	549,000
Weber Basin, Utah.....	70,523,000	41,190,000		16,642,000			7,393,000	1,730,000	3,568,000
Weber River, Utah.....	2,724,487	2,724,487							
Williston, N. Dak.....	409,095					409,095			
Yakima, Wash.....	61,781,410	54,896,417	5,650,844			4,215		1,229,934	
Yuma, Ariz.-Calif.....	7,480,803	6,639,709	457,366			383,738			
Yuma Auxiliary, Ariz.....	1,143,045	120,663				1,022,382			

¹ Other reimbursable costs:

- Flood control.
- Costs not allocated.
- Fish and wildlife conservation.
- Frypan-Arkansas project costs, not allocated.
- Recreation.
- Servicing Mexican Treaty.

² Other nonreimbursable costs:

- Boulder City costs not directly associated with construction or operation of project.

³ Forest Service road construction.

- Power.
- Spillway lighting.
- Highway construction.
- Municipal water (military).
- Mexican Treaty, \$1,000,000 and power litigation costs.

⁴ Constructed by International Boundary and Water Commission.⁵ Excludes costs of U. S. Corps of Engineers features.⁶ Included in Colorado River storage project.⁷ Advanced by Metropolitan Water District.

Newton, Utah.....	350, 155	132, 033	6, 636, 873	155	1, 389, 650	2, 220, 223	6, 636, 873	1, 880, 410	-1, 113, 664	350, 000	78, 750
North Platte, Nebr.-Wyo.....	23, 632, 020						500, 000			24, 015, 786	16, 470, 247
Ochoco, Oreg.....		12, 667		220	11, 389				13, 449	500, 000	
Ogden River, Utah.....	4, 722, 984			57, 972	28, 128					4, 734, 935	1, 344, 814
Okanogan, Wash.....	624, 442			22, 360	179, 329					2, 999, 625	2, 500, 318
Orland, Calif.....	3, 333, 870	1, 800		62, 393	478, 643		10, 586	500, 000	34, 741	19, 826, 659	1, 610, 362
Owyhee, Oregon-Idaho.....	19, 398, 775	23, 107								7, 301, 675	2, 517, 255
Pailsades, Idaho-Wyoming.....	27, 067, 090	1, 765	17, 765, 325					1, 998, 325		1, 675, 000	10, 000
Palo Verde, Ariz.-Calif.....	1, 675, 000							2, 320, 000		2, 320, 000	
Paonia, Colo. ¹											
Parker-Davis, Ariz.-Calif.-Nevada.....	11, 817, 889		11, 817, 889							1, 500, 000	329, 180
Pine River, Colo.....	1, 521, 351	3, 096		22, 470	4, 215					450, 300	
Preston Bench, Idaho.....	450, 100				105, 172	25, 223, 050		814, 978	-814, 978	32, 136, 887	3, 419, 305
Provo River, Utah.....	8, 528, 860	52, 182		38, 057	200	500, 000		600, 000		1, 100, 000	125, 000
Rapid Valley, S. Dak.....	427, 412			427, 412						855, 909	65, 906
Rathdrum Prairie, Idaho.....	855, 909				425, 629					10, 144, 123	7, 243, 011
Rio Grande, Tex.-N. Mex.....	14, 215, 945	11, 322	4, 005, 906	480, 223	425, 629			10, 698, 903	-8, 364, 861	9, 881, 827	665, 450
Riverton, Wyo.....	29, 076, 265	200, 000	308, 008	50, 067	427, 401			1, 175, 409	-382, 097	24, 239, 992	7, 522, 000
Rogue River Basin, Oreg.....	14, 033, 000		5, 334, 591		1, 048, 093			9, 242, 696	188, 785	2, 520, 000	13, 981, 110
Salt River, Ariz.....	36, 077, 308			3, 260, 816	8, 688					373, 376	156, 520
San Luis Valley, Colo.....	2, 322, 527	1, 164						1, 924, 000		13, 969, 000	85, 000
Sanpete, Utah.....	374, 540									247, 000	2, 729, 008
Santa Maria, Calif.....	12, 045, 000				1, 366		31, 000			7, 207, 609	
Schofield, Utah.....	215, 741	3, 900	1, 046, 458	1, 107	487, 366			9, 608, 632	-743, 958		
Shoshone, Wyo.-Mont.....	18, 123, 191							15, 164, 000			
Solano, Calif.....	48, 066, 300	4, 179		32, 902, 300	108, 069		9, 216			3, 349, 424	2, 673, 893
Strawberry Valley, Utah.....	3, 485, 419			250, 006	247, 328					10, 001, 736	1, 762, 524
Sun River, Mont.....	9, 903, 407	21, 603			10, 832					1, 000, 000	350, 340
Truckee storage, Nev.-Calif.....	1, 011, 126	15, 043		355	674, 817					5, 901, 897	45, 856
Tucumcari, N. Mex.....	5, 242, 123	1, 000		2, 100, 439	217, 514		97, 830			1, 142, 042	525, 298
Umatilla, Oreg.....	2, 928, 137			25, 601	830, 293					6, 874, 017	1, 266, 838
Uncompagbre, Colo.....	6, 069, 325	6, 089		37, 729	199, 281					5, 022, 287	546, 641
Vale, Oreg.....	4, 866, 824					11, 776, 920			576, 983	27, 500, 000	
Ventura River, Calif.....	15, 823, 080	676, 983			78, 651			23, 795, 000		2, 107, 943	
Vernajo, N. Mex.....	2, 029, 292				300, 000	13, 797, 000					
Washita Basin, Okla.....	9, 698, 000					16, 642, 000			86, 900	57, 694, 000	1, 892, 136
Weber Basin, Utah.....	41, 190, 000	224, 900			7, 296					2, 685, 872	
Weber River, Utah.....		44, 757									
Williston, N. Dak.....	2, 724, 487			1, 154							
Yakima, Wash.....	54, 896, 417	223, 478	8, 891, 754	451, 158	1, 599, 721		457, 356		287, 148	47, 216, 896	13, 903, 720
Yuma, Ariz.-Calif.....	6, 639, 709	28, 255	204, 377	2, 103, 374	592, 900		2, 105, 815		11, 918	5, 365, 877	5, 184, 036
Yuma Auxiliary, Ariz.....	120, 663	20, 383		657, 354	493			33, 536	44, 570	1, 560, 268	5, 567, 695

¹ Includes water users equity, water service contracts, water and lease revenues, etc.

² Included in Colorado River storage project.

³ Excludes U. S. Corps of Engineers features.

SUMMARY

SCHEDULE IV.—Power allocation repayment

Project and State	Full repayment				Revenues to June 30, 1957					
	Reimbursable commercial power allocation	Sources other than power (credit)	Other obligations repayable by power revenue			Total reimbursable by power	Total	Application		
			Irrigation and other aid ¹	Interest charges	Operating expenses			Construction repayment	Interest	Operation and maintenance expenses
Total, Bureau of Reclamation	\$2,228,693,040	\$72,444,964	\$3,190,600,639	\$1,179,816,562	\$2,940,626,469	\$9,467,291,746	\$582,032,723	\$189,134,119	\$169,526,787	\$223,371,817
Boise, Idaho-Oreg.	4,954,000	---	12,651,688	835,751	19,340,328	37,781,767	6,371,932	2,829,701	449,276	3,092,955
Boulder Canyon-Hoover, Ariz.-Nev.	145,955,612	---	1,250,000,000	142,133,877	233,284,242	546,373,731	160,559,289	17,132,668	67,024,429	76,402,192
Central Valley, Calif.	292,037,000	---	1,105,523,000	128,877,915	333,610,793	860,053,708	98,035,800	66,864,568	11,276,817	19,894,415
Colbran, Colo.	9,791,000	---	3,092,000	10,368,410	3,015,000	28,326,410	---	---	---	---
Colorado-Big Thompson, Colo.	56,981,876	---	71,630,533	34,005,105	66,138,940	228,756,504	21,343,440	5,092,710	7,589,129	8,661,601
Colorado River storage and participating projects	658,160,000	---	237,556,000	53,733,000	n. a.	949,449,000	138,966,583	59,601,377	41,164,340	38,200,866
Columbia Basin, Wash.	192,304,860	---	473,771,700	82,787,370	271,802,568	1,020,666,498	2,929,539	768,189	1,518,724	642,626
Colorado River, Tex.	5,510,500	---	---	20,333,902	17,624,526	70,718,120	---	---	---	---
Eklutna, Alaska	32,759,692	123,876,607	---	75,360,342	30,331,083	187,733,617	15,958,327	4,521,992	9,049,245	2,387,090
Fort Peck, Mont.-N. Dak.	82,042,192	---	---	8,595,208	21,967,354	61,353,323	12,759,109	4,439,118	3,216,909	5,103,082
Hungry Horse, Mont.	16,274,934	---	14,515,827	279,216	35,475,957	39,162,001	11,081,153	4,508,712	218,730	6,353,711
Kendrick, Wyo.	2,835,585	---	571,243	---	---	---	---	---	---	---
Minidock, Idaho-Wyo.	---	---	---	---	---	---	---	---	---	---
Missouri River Basin, various: ²	---	---	---	---	---	---	---	---	---	---
Bureau of Reclamation	506,641,510	---	2,140,229,000	517,137,565	1,611,510,268	4,816,125,443	23,701,113	---	8,174,954	17,139,325
Future additions	42,910,300	42,910,300	140,607,100	---	---	---	---	---	3 - 1,613,166	---
North Platte, Neb.-Wyo.	2,220,223	---	---	3,288	30,024,711	32,248,222	10,660,325	4,346,196	3,288	6,310,841
Pallsades, Idaho-Wyo.	17,256,910	---	22,595,090	6,106,278	37,357,900	83,316,178	369,664	224,486	---	145,178
Parker-Davis, Ariz.-Calif.-Nev.	105,998,164	---	122,341,889	83,556,988	175,862,041	387,759,082	58,400,622	12,859,884	18,390,261	27,150,477
Provo River, Utah	1,025,000	---	923,802	543,541	2,492,393	4,984,736	---	---	---	---
Rio Grande, Tex.-N. Mex.	9,998,281	---	4,005,906	12,087,822	28,199,225	54,291,234	9,388,807	225,903	2,484,041	6,678,863
Riverfront, Wyo.	472,253	---	308,008	67,190	3,358,408	4,205,899	2,231,091	498,769	65,948	1,666,374
Rogue River Basin, Oreg.	8,261,000	---	5,334,591	n. a.	n. a.	13,595,591	---	---	---	---
Shoshone, Wyo.-Mont.	4,204,301	---	1,046,458	512,110	7,762,614	13,525,483	6,560,846	3,535,133	418,302	2,607,411
Solano, Calif.	113,000	---	---	---	---	---	---	---	---	---
Yakima, Wash.	5,650,844	---	8,891,754	2,491,684	9,408,118	26,442,400	1,023,732	823,885	95,560	104,287
Yuma, Ariz.-Calif.	457,356	34,557	---	---	---	422,799	1,691,351	860,828	---	880,523

¹ Includes nonirrigation items as follows: \$25,000,000, flood control, Boulder Canyon-Hoover; \$240,700, fish and wildlife, Central Valley; \$10,524,000, Mexican Treaty provisions, Parker-Davis; \$2,588,300, recreation, Missouri River Basin; \$38,018,800, investigations, Missouri River Basin. Excludes irrigation aid items for Chief Joseph Dam, Deschutes, Michael Flats, and Yuma projects.

² Interest due but not yet earned from revenues.

³ Excludes proportion of total obligations (51.915%) and revenues (64.628%), which applies to U. S. Corps of Engineers (estimated).

SCHEDULE V.—Repayment of construction costs from sources other than repayment contracts and commercial power revenues, June 30, 1957

Project	Contribu- tions	Water service contracts		Water rentals	Lease revenues	Building, grazing, and other rentals	Building, land, and other sales	Advance payments ¹	Pumping power revenues	Miscella- neous receipts	Total
		Irrigation	Municipal and industrial water								
Total.....	\$16,280,998	\$3,002,040	—\$1,150,993	\$2,775,277	\$7,621,636	\$1,878,739	\$646,274	\$2,266,934	\$2,939,021	\$404,728	\$36,656,054
Baker.....	5,000	—	—	—	—	—	—	—	—	59	5,059
Bello Fourche.....	5,325	—	—	—	—	—	—	—	—	—	5,325
Bolas.....	8,066	—	—	371,174	—	298,950	12,668	—	—	73,250	764,088
Boulder Canyon, All-American Canal System.....	20,000	—	—	—	225,629	5,378	—	—	—	21,965	231,699
Buffalo Rapids.....	—	—	—	—	—	—	—	—	—	—	21,805
Buffalo-Trenton (old).....	1,800	—	—	1,999	—	—	—	—	—	—	1,999
Bufford-Trenton.....	1,291	—	—	—	—	—	—	—	—	—	1,291
Burnit River.....	80,394	69,439	—	—	—	—	—	—	—	—	8,955
Calumna.....	7,980	—	57,575	—	1,829	15,567	—	—	—	1,564	208,972
Central Valley.....	0	—	—	17,752	—	—	—	—	—	1,727	41,401
Colorado-Big Thompson.....	8,492	2,838,293	1—1,255,688	—	21,922	3,903	155	—	—	197,866	1,779,991
Columbia Basin.....	313,440	—	8,439	1,446,874	—	79,826	308,934	—	—	18,326	1,499,932
Deschutes.....	140,583	—	—	—	—	271,148	68,000	—	—	5—802,254	204,385
Eden.....	—	—	—	465	—	—	—	—	—	—	235,731
Fort Peck.....	27,382	—	—	—	—	—	—	—	—	—	27,382
Fort Sumner.....	175	—	—	—	—	—	—	—	—	—	175
Fruitgrowers Dam.....	—	—	—	—	—	—	—	—	—	—	2,500
Gila.....	211,300	94,308	—	2,500	44,204	53,637	38,822	—	—	17,894	255,082
Grand Valley.....	—	—	—	6,157	—	10,035	3,647	—	—	43,555	208,537
Humboldt.....	—	—	—	—	—	4,307	24,210	—	—	—	28,517
Hungry Horse.....	—	—	—	—	—	—	—	—	—	1,511	1,511
Huntley.....	718	—	—	15,934	—	—	—	—	—	—	16,652
Hyrum.....	11,883	—	—	—	—	—	—	—	—	—	11,885
Kendrick.....	30,988	—	—	0—33,428	6,715	2,615	—	—	—	19,589	26,479
Klamath.....	413,369	—	—	5,850	7,226,483	72,528	109,680	—	—	—	7,828,140
Lower Yellowstone.....	—	—	—	17,473	—	25,513	—	—	—	—	42,986
Mancos.....	763	—	—	3,000	—	—	402	—	—	4,261	4,261
Milk River.....	4,400	—	—	—	—	51,352	—	—	—	—	85,573
Mindoka.....	59,567	—	29,821	615,067	495	180,192	57,409	113,051	1,735,280	196,613	2,957,179
Mirage Flats.....	—	—	—	—	—	1,556	—	—	—	2,682	4,733
Neon Lake.....	8,093	—	—	—	—	—	—	—	—	—	8,093
Newlands.....	1,463	—	—	—	—	—	—	—	—	—	34,053
Newton.....	—	—	—	—	—	30,473	—	—	—	2,127	30,473
North Platte.....	132,046	—	—	—	—	155	—	—	—	—	155
Ogden River.....	12,667	—	—	—	—	—	—	—	—	—	132,046
Okanogan.....	—	—	—	47,767	—	220	—	—	—	—	12,887
Orland.....	1,800	—	—	—	—	6,876	—	—	953	2,590	58,186
Owyhee.....	23,107	—	—	—	—	—	—	—	—	—	22,360
Palladas.....	1,765	—	—	—	—	46,056	162	—	—	16,175	85,500
Parker-Davis.....	13,011,227	—	—	—	—	20,588	—	—	—	—	22,353
Pine River.....	3,096	—	—	—	—	—	—	—	—	—	25,566
Provo River.....	52,182	—	—	—	—	19,876	337	—	—	2,257	90,239
Rio Grande.....	443,797	—	—	—	—	24,588	853	—	—	12,616	28,063
Riverton.....	—	—	—	8,773	—	19,685	—	—	—	34,742	50,067
Rogue River Basin.....	4,521	—	—	—	—	6,562	—	—	—	—	4,521
Salt River.....	—	—	—	41,237	19,373	20,575	—	1,193,379	998,411	39,122	2,312,097
Sanpete.....	1,164	—	—	—	—	—	—	—	—	—	1,164
Seafield.....	—	—	—	—	—	—	—	—	—	—	1,107
Shoshone.....	3,900	—	—	2,658	—	1,107	—	—	—	—	241,069
Strawberry Valley.....	4,179	—	—	—	—	234,511	—	—	—	12,736	254,185
Sun River.....	—	—	—	—	—	237,270	—	—	—	27,060	91,109
Truckee Storage.....	21,603	—	—	158	—	63,891	10	—	—	339	21,958
Tuacumcui.....	15,043	—	—	—	—	6	—	—	—	—	15,043
Umatilla.....	1,000	—	—	—	—	—	—	—	—	—	116,996
Uncompahgre.....	—	—	—	53,903	—	36,642	2,750	—	—	22,701	25,601
Vale.....	6,089	—	—	—	—	18,056	—	—	—	7,545	25,601
Ventura River.....	676,983	—	—	—	5,770	30,359	—	—	—	8,275	44,723
W. C. Austin.....	9,000	—	—	2	—	690	1,909	—	—	—	676,983
Weber Basin.....	224,900	—	—	—	—	—	—	—	—	—	17,271
Weber River.....	44,757	—	—	—	—	—	—	—	—	—	224,900
Yakima.....	223,478	—	—	128,103	—	341	—	—	—	813	45,911
Yuma.....	—	—	—	19,795	—	132,959	9,129	287,284	—	46,463	827,416
Yuma Auxiliary.....	—	—	—	2,064	—	87,932	7,297	54,551	204,377	47,024	481,248
						10,504		1,618,669		1,069	641,190

¹ \$648,669—Imperial Irrigation District credits, Act of June 13, 1949 (63 Stat. 172).
² Includes loss on disposal of material and equipment (—\$22,301).
³ Includes expenses of hospital operations (—\$348) and other costs (—\$5,111).

⁴ Includes initial expenditures of appropriated funds allocated to municipal water.
⁵ Includes loss from expenditures for guide service and town operations—Coulée Dam (—\$502,254).
⁶ Includes expenses on temporary water service contracts (—\$36,753).

GLOSSARY

Accretions.—Funds collected by agencies other than the Bureau of Reclamation, which are authorized by law to be deposited in the Reclamation fund.

Allocation of costs.—The proportionate distribution of the cost of facilities of a project to the various purposes served, such as irrigation, power, municipal water supply, and miscellaneous purposes as directed in section 9 of the Reclamation Project Act of 1939.

Approved for construction.—Authorized projects for which congressional action has provided construction funds.

Authorized projects.—Projects may be authorized in two ways: by the Secretary of the Interior acting in conformance with the Federal Reclamation laws (act of June 17, 1902, 32 Stat. 388, and acts amendatory thereof or supplementary thereto); or by special legislation of the Congress on project proposals which do not fully conform to existing requirements of the Reclamation laws. Prior to the passage of the act of August 4, 1939 (53 Stat. 1187), a number of projects were authorized by the President. This act returned project authorization to the Secretary of the Interior.

Chargeoffs authorized by the Congress.—Revaluations of reimbursable costs for which projects have been relieved of repayment requirements by congressional authorization.

Collections.—Collections are receipts derived from construction repayments, operation and maintenance repayments, power revenues, water rentals and miscellaneous items.

Colorado River Dam fund.—A special fund established by the Congress under the Boulder Canyon Project Act of December 21, 1948 (45 Stat. 1057) (as amended and modified by the Boulder Canyon Project Adjustment Act of July 19, 1940) (54 Stat. 774), to receive collections from and to finance construction and pertinent operation of Hoover Dam and powerplant and the All-American Canal System.

Construction costs.—All costs, including labor, construction equipment, materials, supplies, installed equipment, land and rights, investigations, engineering and related services which contribute to the original value of the physical works constructed.

Contributions.—Cash or other assets contributed or donated to the project for the purpose of financing wholly or in part extensions of facilities.

Cost of plant, property and equipment.—The term "cost" includes materials, supplies, labor, services, and other items consumed or employed in the construction and installation, the cost of preliminary studies, plans, surveys, engineering, supervision, and general expenses, which contribute directly to the plant.

Cost, total estimated.—Calculations covering all foreseeable costs of a feature, structure or activity, regardless of the source of the funds used for financing.

Distribution system (irrigation).—Usually, a system of small canals and laterals, which, starting from the main canal, conveys water directly to the farm turnouts.

Features (of a project).—The major components, such as dams, canals, powerplants, pumping plants, drains and laterals.

Finding of feasibility.—A document approved by the Secretary of the Interior and sent to the President and the Congress, in which the Secretary states that the proposed project has engineering feasibility and that the estimated cost, less allocations to flood control, navigation and fish and wildlife, will probably be returned to the United States.

Funded charges.—(See "Operation and maintenance charges funded" and "Interest and penalties funded.")

Interest and penalties funded.—Interest and penalties on delinquent charges due from water users which have been included in the construction repayment contracts.

Investment.—The total of all expended Federal appropriations and appropriations available for expenditure as adjusted by transfers of costs and property between Bureau projects and other governmental agencies. The "net" investment of the United States Government is determined by deducting from the total investment the charge-off authorized by the Congress, funds returned to the United States Treasury and nonreimbursable expenditures. The term "investment" is also occasionally used to refer to the construction cost of project facilities even though non-Federal expenditures (contributions) may be included.

Matured charges.—The portion of a repayment contract represented by the installments due, whether paid or not.

Operation and maintenance charges funded.—Operation and maintenance charges due from water users which have been included in the construction repayment contracts.

Power revenue.—The amounts of money received from sales of electric energy, electric property rentals and any other income incidental thereto, including interproject sales.

Project.—Any reclamation or irrigation project, including incidental features thereof, authorized by the Federal Reclamation laws, or constructed by the United States pursuant to said laws, or in connection with which there is a repayment contract executed by the United States, pursuant to said laws, or any project constructed or operated and maintained by the Secretary through the Bureau of Reclamation for the reclamation of the arid lands or other purposes. (Reclamation Project Act of 1939, 53 Stat. 1187.) A project may consist of one major structure or of an entire river basin development. Major subdivisions of a project, consisting of a part that is designed, constructed, and operated as an integral development, more or less self-contained, may be known as *divisions*, and a subdivision of a division may be known as a *unit*.

Reclamation fund.—A special fund established by the Congress under the Reclamation Act of June 17, 1902 (32 Stat. 388), as amended, for the receipts from the sale of public land, proceeds from Oil Leasing Act and certain other revenues. (See "accretions" and "collections.") The Congress makes appropriations from this fund for the in-

vestigation, construction, operation and administration of Reclamation projects. Collections from water users for reimbursable costs are returned to the fund.

Rehabilitation and betterment.—A program authorized by the act of October 7, 1949, providing for the maintenance, including replacements, of irrigation systems on projects governed by Federal Reclamation laws, which cannot be financed currently but which the organizations concerned obligate themselves to return in installments. Construction projects which may include the rehabilitation of features on previously non-Federal projects are not included in the "rehabilitation and betterment" program which is restricted to Federal projects.

Reimbursable.—The portion of the allocation of construction or other costs which is not authorized by the Congress to be nonreimbursable.

Repayment contract.—A contract between a water users' organization and the United States by which the organization obligates itself to repay its share of the reimbursable construction and other costs of a Reclamation project in installments determined in accordance with Reclamation law.

Revenue, miscellaneous.—All revenues received from the operation of Reclamation projects not otherwise classified as repayments, power revenues, or water rentals.

Revenue (power).—See *Power revenue*.

Upper Colorado River Basin fund.—A special fund established by Congress in the Colorado River Storage project authorization, act of April 11, 1956 (70 Stat. 105), to receive operating revenues from the projects and to finance construction and operation of all facilities.

Water rentals.—Revenue received by projects from water users, usually during the construction or development period, which is applied against the reimbursable irrigation (or municipal water) allocation in determining the repayment obligation.

Water service contracts.—A type of contract authorized by the Reclamation Project Act of August 4, 1939 (53 Stat. 1187), whereby water is furnished for irrigation (sec. 9-e) or municipal or miscellaneous purposes (sec. 9-c) at rates to produce revenues sufficient to cover the applicable reimbursable charges.

PROJECT STATEMENTS

xxxiii

ARNOLD PROJECT

BEND, OREG.

Arnold project in Deschutes County, Oregon, serves the Arnold Irrigation District, which was organized as the Arnold Irrigation Co. in 1905. A diversion dam located immediately above the canal intake diverts part of the Deschutes River flow into a short intake channel leading into the distribution system. The district supplements its river flow water with storage water from Crane Prairie Reservoir through inter-district agreements with the Central Oregon Irrigation District.

As most of the structures in the distribution system were constructed of wood, considerable replacement became necessary in later years, and in 1948 the largest flume on the main canal, just below the intake, was in imminent danger of complete failure and possible serious loss of irrigated crops throughout the entire district. Funds to initiate emergency rehabilitation of the works were provided July 25, 1947, in the Interior Department Appropriation Act of 1948 (61 Stat. 460). The Bureau of Reclamation replaced the old wood flume with a semicircular steel flume and installed a new concrete headworks. This work was completed in 1949.

The total construction cost at June 30, 1957, was \$197,926, all of which is allocated to irrigation and is reimbursable. Additional rehabilitation work of replacing deteriorated wooden flumes at a cost of \$70,000, has not been included.

Repayment contracts.—A repayment contract between the Arnold Irrigation District and the United States, dated September 3, 1948, provides for repayment to the United States of all costs up to a maximum of \$210,000.

An amendatory contract dated June 22, 1953, was entered into primarily to modify the repayment terms of the September 3, 1948, contract by extending the payout period from 35 to 40 years. The purpose of the contract was to increase the amount of current district revenues which would be available to the district for doing further rehabilitation and betterment work.

The Arnold irrigation district operates the project works.

Payout schedule.—Based on the announced actual cost of \$197,926, payout under the current contract is scheduled for completion in 1991 with an annual base installment of \$4,902 commencing in 1952.

PUBLIC NOTICES AND CONTRACTS

1948, September 3: Contract Ilr-1519 with Arnold irrigation district to rehabilitate distribution system, cost not to exceed \$210,000.

1950, December 21: Notice from acting regional director announcing the total estimated cost at \$207,150, to be repaid in 35 equal installments, subject to application of normal and percentage repayment plan.

1953, June 22: Contract 14-06-100-132 extending the repayment period to 40 years.

1953, August 24: Notice from Assistant Secretary of the Interior announcing the actual project cost at \$197,926, to be repaid in 40 annual installments, subject to application of normal and percentage repayment plan.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$197, 926
Total matured charges.....	32, 249
Total matured charges repaid.....	32, 249
Total matured charges unpaid.....	0

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1949	\$210, 000							
1950	210, 000							
1951	210, 000							
1952	210, 000	\$4, 202		\$4, 202	\$4, 202		\$4, 202	\$4, 202
1953	210, 000	5, 859		5, 859	5, 859		5, 859	10, 061
1954	¹ 197, 926	6, 599		6, 599	6, 599		6, 599	16, 660
1955	197, 926	6, 618		6, 618	6, 618		6, 618	23, 278
1956	197, 926	5, 833		5, 833	5, 833		5, 833	29, 111
1957	197, 926	3, 138		3, 138	3, 138		3, 138	32, 249
Total		² 32, 249		32, 249	32, 249		32, 249	
Collected				32, 249				
Uncollected				0				

¹ Obligation reduced to actual construction cost.² Excludes uncollected accrual of \$637 for 1958.

AVONDALE PROJECT

COEUR D'ALENE, IDAHO

Rehabilitation of irrigation facilities on the Avondale project was authorized by the terms of the Interior Department Appropriation Act of 1954 (July 31, 1953, 67 Stat. 266). The project is located in Kootenai County in northern Idaho. The purpose of the project works is to provide irrigation water to about 900 acres in which part-time farms and suburban residence units predominate.

The principal features consist of 2 centrifugal pumps capable of delivering 3,000 gallons per minute, an elevated steel equalizing reservoir with a 50,000-gallon capacity, and 470 feet of steel pipeline to deliver irrigation water under pressure to the project's distribution system for sprinkler irrigation.

Total construction cost of these facilities is \$244,424, all of which is allocated to irrigation and is reimbursable.

The Avondale irrigation district operates the project works.

Repayment contracts.—The repayment contract with the district, dated July 14, 1954, provides for repayment to the United States of the actual cost of the project works in an amount not to exceed \$224,000. This amount includes \$2,000 for actual costs of past surveys and investigations, and is established as a part of the district's construction charge obligation. A supplemental contract was also signed with the district on July 14, 1954, to repay an additional sum not to exceed \$53,000. This contract provides for the inclusion

of an elevated steel equalizing tank with automatic pump control facilities and additional steel pipe distribution lines to the project works. The cost of these facilities is to be consolidated with the district's construction obligation and to be repaid by continuing the same annual installments over an extended period.

PUBLIC NOTICES AND CONTRACTS

- 1954, July 14: Contract 14-06-100-517 and 518 with Avondale irrigation district to repay \$224,000, the estimated cost of project rehabilitation in 40 equal annual installments or, at the district's option, in 80 equal semiannual installments.
- 1954, July 14: Contract for construction of additional irrigation facilities, to repay \$53,000 in extended annual installments. The extended payments shall be in the same amounts, and due and payable upon the same basis as established in the contract dated July 14, 1954.
- 1957, June 13: Notice from acting regional director announcing the actual cost at \$244,424, to be repaid in 44 annual installments.

The summary of status of repayment contracts:

Total value of contracted repayment	\$244, 424
Total matured charges	0
Total matured charges repaid	0
Total matured charges unpaid	0

Payout schedule.—A 2-year development period has been fixed, starting January 1, 1956. The first annual construction installment is to be made on or before December 31, 1958, with repayment completed in 40 years.

BAKER PROJECT

BAKER, OREG.

Baker project was found feasible by the Secretary of the Interior on March 17, 1931, and construction of Thief Valley Dam was authorized by the President on March 18, 1931, in pursuance of section 4 of the act of June 25, 1910 (36 Stat. 836) and subsection B of section 4 of the act of December 5, 1924 (43 Stat. 702). The dam is located 17 miles northeast of Baker in Union County, Oreg.

The original project, developed by early settlers, consisted of diversion works and a canal system to serve approximately 7,300 acres in Baker County in the lower Powder River Valley. Mid-summer river flows proved too erratic for sustained crop production. To supplement the water supply, construction of Thief Valley Dam was begun September 12, 1931, with first storage available June 1, 1932.

Total cost of \$281,589 is reimbursable and allocated to irrigation. A contribution for construction amounted to \$5,000. Payment of general investigations costs of \$51,574 has been deferred pending development of the proposed Greater Baker project.

The Lower Powder River irrigation district has operated the project since June 1, 1932. There are no power facilities or reserved works.

Repayment contracts.—The Lower Powder River

irrigation district contracted with the Bureau of Reclamation to build Thief Valley Dam and Reservoir. After excavation was started, it became apparent that more excavating would be required than originally estimated. The year following, a supplemental contract was negotiated increasing the limitations on expenditures from \$200,000 to \$240,000 to provide for additional excavating and concrete work. Otherwise provisions of the original contract remained unchanged.

Payout schedule.—Payout is scheduled for completion in 1976 by 39 equal installments of \$5,770, commencing in 1937 with the first half-year payment.

CONTRACTS

1931, May 18: Contract Ilr-649 with Lower Powder River irrigation district for construction of Thief Valley Dam with total obligation not to exceed \$200,000 repayable in 39 years.

1932, February 29: Supplemental repayment contract to increase the limit of expenditure from \$200,000 to \$240,000.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$225, 015
Total matured charges.....	118, 276
Total matured charges repaid.....	118, 276
Total matured charges unpaid.....	0

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1932.....	\$240,000	(¹)	-----	-----	-----	-----	-----	-----
1933.....	240,000	(¹)	-----	-----	-----	-----	-----	-----
1934.....	² 225,188	(¹)	-----	-----	-----	-----	-----	-----
1935.....	225,188	(¹)	-----	-----	-----	-----	-----	-----
1936.....	225,015	(¹)	-----	-----	-----	-----	-----	-----
1937.....	225,015	\$2,885	-----	\$2,885	\$2,885	-----	\$2,885	\$2,885
1938.....	225,015	5,770	-----	5,770	5,770	-----	5,770	8,655
1939.....	225,015	5,769	-----	5,769	5,769	-----	5,769	14,424
1940.....	225,015	5,770	-----	5,770	5,770	-----	5,770	20,194
1941.....	225,015	5,769	-----	5,769	5,769	-----	5,769	25,963
1942.....	225,015	5,770	-----	5,770	5,770	-----	5,770	31,733
1943.....	225,015	5,769	-----	5,769	5,769	-----	5,769	37,502
1944.....	225,015	5,770	-----	5,770	5,770	-----	5,770	43,272
1945.....	225,015	5,769	-----	5,769	5,769	-----	5,769	49,041
1946.....	225,015	5,769	-----	5,769	5,769	-----	5,769	54,810
1947.....	225,015	5,770	-----	5,770	5,770	-----	5,770	60,580
1948.....	225,015	5,769	-----	5,769	5,769	-----	5,769	66,349
1949.....	225,015	5,770	-----	5,770	5,770	-----	5,770	72,119
1950.....	225,015	5,769	-----	5,769	5,769	-----	5,769	77,888
1951.....	225,015	5,770	-----	5,770	5,770	-----	5,770	83,658
1952.....	225,015	5,770	-----	5,770	5,770	-----	5,770	89,428
1953.....	225,015	5,770	-----	5,770	5,770	-----	5,770	95,198
1954.....	225,015	5,769	-----	5,769	5,769	-----	5,769	100,967
1955.....	225,015	5,770	-----	5,770	5,770	-----	5,770	106,737
1956.....	225,015	5,769	-----	5,769	5,769	-----	5,769	112,506
1957.....	225,015	5,770	-----	5,770	5,770	-----	5,770	118,276
Total.....	-----	118,276	-----	118,276	118,276	-----	118,276	-----
Collected.....	-----	-----	-----	118,276	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	0	-----	-----	-----	-----

¹ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1933, \$5,770; 1934, \$5,769; 1935, \$5,770; 1936, \$2,884.

² Obligation reduced to actual cost.

BALMORHEA PROJECT

BALMORHEA, TEX.

Repairs and reconstruction work on the Balmorhea project in Reeves County in west Texas were completed in 1947 by the United States. The work was approved by the President on April 15, 1944, under authority of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended.

The project was developed to supply supplemental water to 10,608 acres of land. The project features include purchase of the Phantom Lake Spring, construction of the Phantom Lake Canal to convey water from the spring to the project, construction of the inlet feeder canal to carry normal low flows in excess of immediate irrigation demands from the present main canal to the Lower Parks Reservoir, some necessary repairs to existing irrigation facilities, and the necessary operation and maintenance during construction.

The total completed cost of the Balmorhea project features was \$437,298 including \$30,765 of funded operation and maintenance charges. Reimbursable costs are limited to \$255,600 by the finding of feasibility made pursuant to the July 16, 1943, amendment to the Water Conservation Utilization Act.

The Balmorhea project is operated by the Reeves County Water Improvement District No. 1.

CONTRACT

1945, August 23: Contract Ilr-1473 with Reeves County Water Improvement District No. 1 for repayment of \$255,600 in 40 annual installments.

The status of repayment on June 30, 1957, is as follows:

Total value of contracted repayment.....	\$255, 600
Total matured charges.....	24, 200
Total matured charges repaid.....	24, 200
Total matured charges unpaid.....	0

Payout schedule.—The contract between the United States and the Reeves County Water Improvement District No. 1 dated August 23, 1945, provides that \$255,600 will be paid in 40 annual installments. The payout period is 1948–87, inclusive. From 1948 through 1967 the annual payments, on a calendar year basis, vary from \$2,219 to \$2,879, averaging \$2,467, until the district repays its RFC obligations. The remainder of the payout-period payments will be \$10,719 annually, except for the final payment which will be \$2,599:

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1948-----	\$255, 600	\$1, 119	-----	\$1, 119	\$1, 119	-----	\$1, 119	\$1, 119
1949-----	255, 600	2, 319	-----	2, 319	2, 319	-----	2, 319	3, 438
1950-----	255, 600	2, 479	-----	2, 479	2, 479	-----	2, 479	5, 917
1951-----	255, 600	2, 639	-----	2, 639	2, 639	-----	2, 639	8, 556
1952-----	255, 600	2, 799	-----	2, 799	2, 799	-----	2, 799	11, 355
1953-----	255, 600	2, 709	-----	2, 709	2, 709	-----	2, 709	14, 064
1954-----	255, 600	2, 629	-----	2, 629	2, 629	-----	2, 629	16, 693
1955-----	255, 600	2, 559	-----	2, 559	2, 559	-----	2, 559	19, 252
1956-----	255, 600	2, 499	-----	2, 499	2, 499	-----	2, 499	21, 751
1957-----	255, 600	2, 449	-----	2, 449	2, 449	-----	2, 449	24, 200
Total-----		24, 200	-----	24, 200	24, 200	-----	24, 200	-----
Collected-----			-----	24, 200		-----		-----
Uncollected-----			-----	0		-----		-----

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1948-----	\$5, 500	\$5, 500
1949-----	2, 600	2, 600
1950-----	6, 000	6, 000
1951-----	5, 800	5, 800
Total-----	19, 900	19, 900

Payout study—Continued

Fiscal year	Net revenues from irrigation water users	Irrigation plant in service at end of year	Interest free balance to be repaid
1948-----	\$1, 119	\$425, 760	\$254, 481
1947-----	2, 319	437, 889	252, 162
1950-----	2, 479	437, 641	249, 683
1951-----	2, 639	437, 674	247, 044
1952-----	2, 799	437, 726	244, 245
1953 ¹ -----	2, 709	437, 726	241, 536
1954-----	2, 629	407, 741	238, 907
1955-----	2, 559	407, 741	236, 348
1956-----	2, 499	406, 533	233, 849
1957-----	2, 449	406, 533	231, 400
1958-----	2, 409	406, 533	228, 991
1959-----	2, 379	406, 533	226, 612
1960-----	2, 359	406, 533	224, 253

Fiscal year	Net revenues from irrigation water users	Irrigation plant in service at end of year	Interest free balance to be repaid
1961-----	\$2, 349	\$406, 533	\$221, 904
1962-----	2, 349	406, 533	219, 555
1963-----	2, 359	406, 533	217, 196
1964-----	2, 379	406, 533	214, 817
1965-----	2, 409	406, 533	212, 408
1966-----	2, 449	406, 533	209, 959
1967-----	2, 499	406, 533	207, 460
1968-----	6, 559	406, 533	200, 901
1969-----	10, 719	406, 533	190, 182
1970-----	10, 719	406, 533	179, 463
1971-----	10, 719	406, 533	168, 744
1972-----	10, 719	406, 533	158, 025
1973-----	10, 719	406, 533	147, 306
1974-----	10, 719	406, 533	136, 587
1975-----	10, 719	406, 533	125, 868
1976-----	10, 719	406, 533	115, 149
1977-----	10, 719	406, 533	104, 430
1978-----	10, 719	406, 533	93, 711
1979-----	10, 719	406, 533	82, 992
1980-----	10, 719	406, 533	72, 273
1981-----	10, 719	406, 533	61, 554
1982-----	10, 719	406, 533	50, 835
1983-----	10, 719	406, 533	40, 116
1984-----	10, 719	406, 533	29, 397
1985-----	10, 719	406, 533	18, 678
1986-----	10, 719	406, 533	7, 959
1987-----	6, 659	406, 533	1, 300
1988-----	1, 300	406, 533	0

¹ Plant costs reclassified to remove operation and maintenance during construction.

BELLE FOURCHE PROJECT

NEWELL, S. DAK.

Construction of the Belle Fourche project was authorized by the Secretary of the Interior on May 10, 1904, under provisions of the original Reclamation Act of June 17, 1902 (32 Stat. 388).

The principal purpose of the Belle Fourche project is irrigation and the project at present supplies water to 57,400 acres of land in Meade and Butte Counties, S. Dak. The water supply is diverted from the Belle Fourche River with diversion works located 1½ miles downstream from the city of Belle Fourche. From the diversion dam, the Inlet Canal carries the water approximately 6½ miles in a northeasterly direction to the Belle Fourche Reservoir on Owl Creek. Water from the reservoir is released through the Belle Fourche Dam into the North and South main canals, each about 45 miles long, which carry the water to the irrigated lands.

The reimbursable cost of the project is allocated entirely to irrigation. A recapitulation of the costs and repayment is presented in the following table:

Primary construction cost.....	\$3, 531, 575. 18
Supplemental construction cost.....	1, 069, 344. 53
Rehabilitation and betterment.....	399, 870. 92
Court of Claims cost.....	37, 316. 36
Total.....	\$5, 038, 106. 99
Operation and maintenance funded.....	570, 194. 90
Interest and penalties funded.....	106, 382. 63
Deductions:	
Contributed funds.....	\$5, 324. 86
Chargeoff, act of May 25, 1926.....	652, 699. 48

Deductions—Continued

Chargeoff, land classification Dec. 27, 1948, 13,604.7 acres.....	\$735, 606. 13
Chargeoff, land classification approved Feb. 11, 1955, 1,682.9 acres.....	90, 994. 40

Total deductions..... \$1, 484, 624. 87

Total obligation..... 4, 230, 059. 65

On January 1, 1949, the Belle Fourche irrigation district assumed the operation and maintenance of the project works.

Repayment contracts.—An amendatory contract dated November 29, 1949, was negotiated pursuant to subsection (a) of section 7 of the Reclamation Act of 1939 and was approved by Public Law 419, 81st Congress, 1st session. The obligation is to be repaid at the rate of \$38,700 per year. The district may elect to pay annual installments according to a variable formula reflecting changing economic conditions. A rehabilitation and betterment construction program, completed in 1956 in the amount of \$399,870.92, is included in the amendatory contract.

PUBLIC NOTICES AND CONTRACTS

- 1907, June 21: Public notice. Construction charge \$30 per acre. Payable 10 equal annual installments.
- 1910, February 19: Public notice. Construction charge \$30 per acre. Payable 10 equal annual installments.
- 1911, December 30: Public notice. Equal annual installments charged to graduated annual installments and for some lands construction charge raised to \$35 and \$40 per acre.
- 1912, May 2: Public notice. Construction charge \$30, \$35, and \$40 per acre. Payable in 10 graduated installments.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1909		\$22, 313		\$22, 313	\$612		\$612	\$612
1910		32, 322		32, 322	9, 646	\$19, 475	29, 121	29, 733
1911		100, 218		100, 218	8, 370	24, 120	32, 490	62, 223
1912		54, 100	¹ \$127, 094	¹ 72, 994	30, 438	¹ 34, 885	¹ 4, 447	57, 776
1913		96, 809	4, 135	100, 944	15, 824	17, 880	33, 704	91, 480
1914		133, 895	¹ 42, 501	91, 394	12, 556	2, 278	14, 834	106, 314
1915	\$1, 621, 056	74, 246	¹ 105, 659	¹ 31, 413	21, 224	¹ 2, 049	19, 175	125, 489
1916	1, 914, 686	40, 085	¹ 96, 363	¹ 56, 278	25, 718	10, 922	36, 640	162, 129
1917	2, 125, 659	43, 404		43, 404	23, 755	24, 382	48, 137	210, 266
1918	2, 269, 795	36, 918		36, 918	22, 054	19, 649	41, 703	251, 969
1919	2, 394, 007	64, 244		64, 244	46, 424	14, 864	61, 288	313, 257
1920	2, 621, 980	68, 562		68, 562	48, 817	10, 297	59, 114	372, 371
1921	2, 616, 632	100, 454		100, 454	39, 441	9, 983	49, 424	421, 795
1922	2, 617, 847	110, 791	¹ 719	110, 072	16, 252	9, 282	25, 534	447, 329
1923	2, 597, 278	119, 910	¹ 1, 668	118, 242	8, 646	6, 251	14, 897	462, 226
1924	² 4, 345, 277	62, 744	¹ 331, 284	¹ 268, 540	28, 902	¹ 65, 103	¹ 36, 201	426, 025
1925	4, 345, 277	137, 112	62, 316	199, 428	19, 582	26, 418	46, 000	472, 025
1926	4, 345, 277	137, 078		137, 078	7, 109		7, 109	479, 134
1927	4, 345, 277	0	¹ 121	¹ 121	0	¹ 30	¹ 30	479, 104
1928	4, 343, 586	6, 584	¹ 683	5, 901	6, 584	¹ 641	5, 943	485, 047
1929	4, 251, 433	72, 779	¹ 322, 115	¹ 249, 336	72, 779	¹ 5, 014	67, 765	552, 812
1930	³ 5, 416, 493	34, 521	¹ 1, 322	33, 199	34, 521	¹ 1, 322	33, 199	586, 011
1931	5, 404, 740	61, 179	¹ 2, 562	58, 617	61, 179	¹ 2, 562	58, 617	644, 628
1932	5, 313, 998	⁴ 1, 635	¹ 23, 879	¹ 22, 244	1, 635	¹ 23, 879	¹ 22, 244	622, 384
1933	5, 313, 998	⁴ 1, 167		1, 167	1, 167		1, 167	623, 551
1934	5, 324, 254	⁴ 799		799	799		799	624, 350
1935	5, 324, 254	⁴ 0	¹ 221	¹ 221	0	¹ 221	¹ 221	624, 129
1936	5, 320, 632	⁴ 2, 505		2, 505	2, 505		2, 505	626, 634
1937	5, 320, 632	⁴ 57, 458		57, 458	5, 106		5, 106	631, 740
1938	5, 320, 632	⁴ 17, 413	¹ 3, 384	14, 029	1, 997	18, 691	20, 688	652, 428
1939	5, 320, 632	⁵ 57, 716		57, 716	4, 031	16, 131	20, 162	672, 590
1940	5, 320, 632	⁵ 28, 655	¹ 67, 748	¹ 39, 093	1, 724	13, 711	15, 435	688, 025
1941	5, 320, 632	⁵ 33, 828		33, 828	7, 445	1, 790	9, 235	697, 260
1942	5, 320, 632	33, 498		33, 498	5, 431	22, 839	28, 270	725, 530
1943	5, 320, 632	⁵ 66, 138		66, 138	60, 311	58, 539	118, 850	844, 380
1944	5, 320, 632	63, 020		63, 020	49, 829	5, 828	55, 657	900, 037
1945	5, 320, 632	63, 172	¹ 20, 785	42, 387	61, 986	¹ 7, 594	54, 392	954, 429
1946	5, 320, 632	66, 464		66, 464	14, 752	1, 186	15, 938	970, 367
1947	5, 320, 632	69, 791		69, 791	791	6, 117	6, 908	977, 275
1948	5, 320, 632	⁵ 69, 000		69, 000	35, 206	114, 595	149, 801	1, 127, 076
1949	5, 320, 632	⁵ 103, 500	¹ 50, 300	53, 200	34, 549	33, 794	68, 343	1, 195, 419
1950	5, 320, 632	19, 350		19, 350	19, 350	18, 651	38, 001	1, 233, 420
1951	⁶ 3, 921, 183	38, 700	32, 407	71, 107	38, 700	32, 407	71, 107	1, 304, 527
1952	⁷ 4, 321, 183	38, 700		38, 700	38, 700		38, 700	1, 343, 227
1953	4, 321, 183	38, 700	⁸ 2, 549	41, 249	38, 700	2, 549	41, 249	1, 384, 476
1954	4, 321, 183	38, 700		38, 700	38, 700		38, 700	1, 423, 176
1955	⁶ 4, 230, 189	38, 700		38, 700	38, 700		38, 700	1, 461, 876
1956	4, 230, 189	38, 700		38, 700	38, 700		38, 700	1, 500, 576
1957	4, 230, 060	38, 700	⁹ 10, 838	49, 538	38, 700	10, 838	49, 538	1, 550, 114
Total Collected		2, 636, 277	-1, 086, 163	¹⁰ 1, 550, 114	1, 139, 947	410, 167	1, 550, 114	
Uncollected				0				

¹ Decrease. Decreases are due to funding of delinquent charges, deferments under relief acts and cancellations of water-right applications. 1912—Reduction of accruals, 1911 public notice. 1915—Reclamation Extension Act, Aug. 3, 1914. 1924—Funding of delinquencies, 1923 contract. 1929—Funding of delinquencies, 1927 contract.

² Increase in obligation due to assumption by district of obligation to pay construction and operation and maintenance deficits and to funding of delinquencies.

³ Increase in obligation due to assumption by district of obligation for drainage work and replacements, and to funding of delinquencies.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$51,907; 1932, \$50,764; 1933, \$49,202; 1934, \$49,574; 1935, \$49,062; 1936,

\$27,047. Part 1937 charge deferred under act of Aug. 21, 1937, \$38,500. Part 1938 charges deferred under act of May 31, 1939, \$40,245.

⁵ Charges deferred under act of Aug. 4, 1939: Year 1939, \$53,993; 1940, \$26,930; 1941, \$30,630; 1943, \$20,685; 1948, \$20,000; and 1949, \$30,300. \$32,407 additional credits allowed under the 1949 amendatory repayment contract.

⁶ Decrease due to beginning and completion of land reclassification as provided for in the amendatory contract dated Nov. 29, 1949.

⁷ \$400,000 rehabilitation and betterment added.

⁸ Applications of funds received from grazing rentals and purchase of highway rights of way.

⁹ Applications of funds received from sale of public lands and purchase of highway rights of way.

¹⁰ Includes \$5,411 paid on suspended or temporarily unproductive lands.

Operation and maintenance assessments history

- 1915, May 18: Public notice. Construction charge \$40 per acre. Payable 20 graduated installments.
- 1917, January 9: Public notice. Construction charge \$45 per acre. Payable 20 graduated installments.
- 1921, August 2: Public notice. Construction charge \$45 per acre. Payable 20 graduated installments.
- 1923, July 16: Contract with Belle Fourche irrigation district. District obligated to pay construction cost of project. Construction deficit, operation and maintenance deficit, and delinquent charges merged as supplemental construction to be paid after 20-year-repayment period in installments of \$3.15 per acre.
- 1927, October 4: Contract with Belle Fourche irrigation district. Time of payment of primary construction charges extended to 40 years. Delinquent operation and maintenance and penalties and construction penalties funded. District assumed additional obligation for construction of drains, \$1,000,000, and for replacement of structures, \$150,000, to be paid as supplemental construction. Supplemental construction to be paid in 20 semi-annual installments after primary construction.
- 1931, September 1: Contract with Belle Fourche irrigation district. Remainder of primary construction to be paid in graduated annual installments of from \$50,000 to \$75,000, 1931 to 1955. Supplemental construction to be paid after primary at rate of \$75,000 per year.
- 1949, November 24: Amendatory contract Ilr-1555 with the Belle Fourche irrigation district established a repayment rate of \$38,700 per year unless the district elects to pay annual installments according to a variable formula.

Payout schedule.—Payout of the unmatured obligation of \$2,679,946 is scheduled for completion in about 70 years by the annual payment of \$38,700 annually, commencing in fiscal year 1951.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$4, 230, 060
Total matured charges.....	1, 550, 114
Total matured charges repaid.....	1, 550, 114
Total matured charges unpaid.....	0

Fiscal year	Accruals	Collections
1909.....	\$5, 950	\$5, 371
1910.....	11, 976	11, 806
1911.....	22, 463	22, 598
1912.....	27, 492	13, 433
1913.....	32, 117	12, 181
1914.....	30, 341	25, 532
1915.....	¹ 4, 800	15, 613
1916.....	30, 843	25, 275
1917.....	54, 868	43, 579
1918.....	67, 490	62, 467
1919.....	96, 115	87, 988
1920.....	101, 730	89, 444
1921.....	147, 036	55, 286
1922.....	148, 497	37, 420
1923.....	98, 745	17, 808
1924.....	¹ 345, 280	¹ 55, 988
1925.....	76, 285	22, 771
1926.....	78, 060	57, 561
1927.....	75, 000	11, 620
1928.....	135, 000	115, 137
1929.....	¹ 137, 619	75, 407
1930.....	65, 000	65, 000
1931.....	67, 500	67, 500
1932.....	63, 700	63, 700
1933.....	56, 767	56, 767
1934.....	59, 534	59, 534
1935.....	67, 500	67, 500
1936.....	71, 304	71, 304
1937.....	49, 049	49, 049
1938.....	71, 255	71, 255
1939.....	61, 870	61, 870
1940.....	64, 000	64, 000
1941.....	45, 088	45, 088
1942.....	43, 000	43, 000
1943.....	49, 262	49, 262
1944.....	62, 296	62, 296
1945.....	62, 200	62, 200
1946.....	61, 458	61, 458
1947.....	61, 154	61, 154
1948.....	58, 269	58, 269
1949.....	4, 873	4, 873
1950.....	6, 000	6, 000
1951.....	4, 100	4, 100
1952 ²	2, 051	2, 051
Total	1, 909, 539	1, 909, 539

¹ Decrease.

² Project assumed full responsibility for all operation and maintenance costs after 1952.

BITTER ROOT PROJECT

HAMILTON, MONT.

Rehabilitation of the irrigation system of the Bitter Root irrigation district in Missoula and Ravalli Counties, Mont., and the liquidation of its private indebtedness were authorized by the act of July 3, 1930 (46 Stat. 852).

Facilities to serve land in the Bitter Root project were originally constructed with private capital. Water is stored in Lake Como Reservoir, on Rock Creek, one of the tributaries of Bitterroot River. Diversion is accomplished by the Rock Creek diversion dam, 1 mile below Lake Como.

The cost and repayment allocations are:

Construction cost.....	\$932, 124
Rehabilitation and betterment.....	325, 000
Operation and maintenance funded.....	22, 927
<hr/>	
Total estimated project cost.....	1, 280, 051
Less chargeoff by Congress (act of January 30, 1954).....	2, 310
<hr/>	
Reimbursable cost.....	1, 277, 741
<hr/>	
Allocation of reimbursable costs: Irrigation.....	1, 277, 741

The district has always operated and maintained the irrigation system.

Repayment contracts.—The total original cost incurred by the United States in rehabilitating the project irrigation system and liquidation of the private indebtedness of the Bitter Root irrigation district was \$747,641. In 1936, \$200,000 was added for rehabilitation, making a total obligation of \$947,641. A portion (\$5,100) of the costs of financial adjustment investigations and contract negotiation leading to the 1948 repayment contract have been added to this. By approving the 1948 amendatory repayment contract, Congress established the total obligation of the district at \$952,741. This 1948 contract also includes provision for expenditure of not more than \$100,000 or additional rehabilitation work by the United

States which would increase the total obligation to \$1,052,741. The latest contract dated December 28, 1956, provides for another rehabilitation program of \$225,000, making a total repayment ceiling of \$1,277,741. As noted above, the amendatory repayment contract ceiling of \$1,052,741 includes \$5,100 to cover the cost of writing the amendatory contract to be repaid by the district. Actual cost of writing the contract was \$7,410. The excess cost of \$2,310 not covered by the contract was charged off by Congress by Public Law 289, 83d Congress, 2d session (act of January 30, 1954).

The original repayment contract with the Bitter Root irrigation district was signed on August 24, 1931. This contract provided \$1,250,000 of Federal funds, of which not to exceed \$500,000 would be used by the United States to retire the bonded and other outstanding indebtedness of the district, and the balance remaining of \$750,000 would be used to rehabilitate the irrigation system for the district. A contract dated March 17, 1936, provided for expenditure by the United States of an additional \$200,000 to rehabilitate the system of the district. An amendatory contract dated September 16, 1948, canceled payment of interest by the district on the amount advanced initially to liquidate its indebtedness, canceled all interest on delinquencies to the date of the contract, and rescheduled annual payments by the district on the basis of water-user repayment ability. Contract also provides that a maximum of \$100,000 can be spent by the United States to rehabilitate the irrigation system. Amounts expended under this provision are to be added to the total construction obligation and repaid at the same rate as provided for the other portions of the construction obligation. The latter contract was approved by act of Congress on May 6, 1949 (Public Law 56, 81st Cong., 1st sess.).

Payout schedule.—Payout is estimated to be completed in about 49 years commencing in 1948 by payments of \$16,665, subject to annual adjustment by application of the normal and percentage plan plus parity. Payout under the 1956 contract will require 40 years beginning in 1958 at an estimated installment of \$5,625 per year.

CONTRACTS

- 1931, August 24: Contract with Bitter Root irrigation district. Repay indebtedness and repair system. Seven hundred and fifty thousand dollars maximum to be spent by United States. Interest at 4 percent on all advances. Only interest to be paid first 5 years, then obligation in 35 amortized installments.
- 1936, March 17: Contract with Bitter Root irrigation district. Two hundred thousand dollars additional provided for rehabilitation of the irrigation system. Also \$43,247.81 in delinquent interest funded with original obligation. Interest payments no longer required on funds advanced for rehabilitation. Added amount to be repaid in 40 equal annual installments.

1948, September 16: Contract with Bitter Root irrigation district. Canceled interest payments on all advanced funds, including \$43,247.81 previously funded. Cost of financial adjustment investigation, \$5,100, added to construction obligation. Installments scheduled at \$16,665 annually, varied by normal and percentage and the parity ratio for feed grains, hay, and dairy products. Installments may vary from a minimum of 15 percent to a maximum of 200 percent of the base rate.

1956, December 28: Contract with Bitter Root irrigation district for rehabilitation and betterment work not to exceed \$225,000. First installment due July 1, 1958, in the amount of \$5,625 and each year thereafter until final costs are determined. The balance due after final costs are established shall be spread equally over the remainder of a total 40-year payout period.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$1, 052, 741
Total matured charges.....	371, 526
Total matured charges repaid.....	1 371, 526
Total matured charges unpaid.....	0

¹ Excludes 1958 payment of \$11,399 received in fiscal year 1957.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1937.....	\$1, 464, 279	\$36, 122	-----	\$36, 122	\$18, 025	-----	\$18, 025	\$18, 025
1938.....	1, 464, 279	36, 123	-----	36, 123	18, 026	-----	18, 026	36, 051
1939.....	1, 464, 279	36, 122	-----	36, 122	18, 061	-----	18, 061	54, 112
1940.....	1, 464, 279	18, 735	¹ — \$45, 648	— 26, 913	18, 735	\$8, 607	27, 342	81, 454
1941.....	1, 464, 279	20, 561	-----	20, 561	20, 561	-----	20, 561	102, 015
1942.....	1, 464, 279	41, 122	-----	41, 122	12, 143	-----	12, 143	114, 158
1943.....	1, 464, 279	41, 122	-----	41, 122	12, 143	-----	12, 143	126, 301
1944.....	1, 464, 279	41, 123	-----	41, 123	17, 561	-----	17, 561	143, 862
1945.....	1, 464, 279	41, 122	-----	41, 122	19, 276	-----	19, 276	163, 138
1946.....	1, 464, 279	41, 122	-----	41, 122	16, 878	-----	16, 878	180, 016
1947.....	1, 464, 279	41, 122	-----	41, 122	19, 786	-----	19, 786	199, 802
1948.....	1, 464, 279	41, 122	-----	41, 122	16, 603	-----	16, 603	216, 405
1949.....	1, 464, 279	41, 122	-----	41, 122	16, 665	-----	16, 665	233, 070
1950.....	² 992, 741	16, 665	³ — 168, 602	— 151, 937	16, 665	⁴ 29, 320	45, 985	279, 055
1951.....	992, 741	11, 759	-----	11, 759	11, 759	-----	11, 759	290, 814
1952.....	992, 741	17, 635	-----	17, 635	17, 635	-----	17, 635	308, 449
1953.....	992, 741	13, 645	-----	13, 645	13, 645	-----	13, 645	322, 094
1954.....	992, 741	16, 118	-----	16, 118	16, 118	-----	16, 118	338, 212
1955.....	⁵ 1, 052, 741	12, 799	-----	12, 799	12, 799	-----	12, 799	351, 011
1956.....	1, 052, 741	9, 719	-----	9, 719	9, 719	-----	9, 719	360, 730
1957.....	⁶ 1, 277, 741	10, 796	-----	10, 796	⁷ 10, 796	-----	10, 796	371, 526
Total.....		585, 776	— 214, 250	371, 526	333, 599	37, 927	371, 526	-----
Collected.....				371, 526				-----
Uncollected.....				0				-----

¹ Decrease due to deferment of charges under Relief Act.

² Obligation of water users reduced by amendatory contract Ilr-1533, dated Sept. 16, 1948, by eliminating interest being charged on amount expended for liquidation of bonded indebtedness of district. Obligation reflects \$40,000 of the \$100,000 for current and anticipated rehabilitation and betterment work.

³ Decrease to reflect adjustment under new contract whereby delinquencies are funded.

⁴ Application of prior interest payments on liquidated bonded indebtedness to construction obligation.

⁵ Obligation increased \$60,000 to reflect full amount provided in repayment contract for rehabilitation and betterment work.

⁶ Obligation increased by \$225,000 to reflect additional rehabilitation and betterment repayment contract.

⁷ Excludes 1958 payment of \$11,399 received in fiscal year 1957.

BOISE PROJECT

IDAHO, OREG.

Construction of the Boise project was originally authorized for (a) the Arrowrock division on March 27, 1905, by the Secretary of the Interior under provisions of the Reclamation Act of June 17, 1902 (32 Stat. 388); (b) Arrowrock Dam, January 6, 1911; (c) Black Canyon Dam and powerplant, 1924; (d) Deadwood Dam and Reservoir, October 19, 1928; (e) Payette division, December 19, 1935, by the President under section 4 of the act of June 25, 1910 (36 Stat. 836); (f) Anderson Ranch Dam and Reservoir, August 12, 1940, by the Secretary of the Interior under Reclamation Project Act of 1939 (53 Stat. 1187).

The Boise project development comprises irrigation, storage, diversion and distribution works which, together with auxiliary power development, provide water for lands in southwestern Idaho and eastern Oregon. When considered from the standpoint of lands served with irrigation water, the project falls naturally into the Arrowrock and Payette divisions, as described below.

The estimated total cost of the project is \$68,703,721 including \$1,821,473, funded charges.

The cost and repayment allocations are:

Total estimated project cost.....	\$68, 703, 721
-----------------------------------	----------------

Allocation of costs:

Reimbursable costs:

Irrigation.....	46, 506, 732
Power.....	7, 369, 830

Subtotal.....	53, 876, 562
Nonreimbursable costs: Flood control..	14, 827, 159

Repayment of reimbursable costs:

From power revenues:

For electric plant investment.....	7, 369, 830
For irrigation plant investment.....	10, 235, 858

Subtotal.....	17, 605, 688
---------------	--------------

Repayment of reimbursable costs—Continued

From irrigation water users.....	\$30, 493, 577
Future development ¹	5, 694, 903
Chargeoffs authorized by Congress.....	82, 394

Total.....	53, 876, 562
------------	--------------

Arrowrock division:

Anderson Ranch Dam and powerplant..	30, 151, 569
Arrowrock Dam.....	5, 283, 775
Deer Flat Reservoir.....	978, 224
Boise River diversion dam.....	369, 977
Boise River powerplant.....	200, 373
Canals, drainage, miscellaneous facilities.....	9, 586, 452

Subtotal (Arrowrock division).....	46, 570, 370
------------------------------------	--------------

Payette division:

Cascade Dam.....	8, 537, 521
Black Canyon Dam and powerplant...	2, 283, 433
Deadwood Dam.....	1, 391, 872
"C" line transmission line.....	162, 707
First unit.....	505, 158
Second unit.....	9, 079, 755
Black Canyon pumping plant.....	134, 714
Funded and plant abandoned.....	38, 191

Subtotal (Payette division).....	22, 133, 351
----------------------------------	--------------

Total.....	68, 703, 721
------------	--------------

¹ Includes unsold space in Cascade and Deadwood Dams. Allocation is dependent on future sales and authorizations.

Power generated at the three powerplants (Anderson Ranch, diversion, and Black Canyon) is used primarily to serve project pumping loads on the Boise and Owyhee projects. A substantial block of power is also furnished to the Minidoka project and is used to supplement power generated and sold on that project. Power is also furnished one REA financed cooperative. Two thousand kilowatts of peaking power together with additional secondary energy is sold to the Idaho

Power Company. The Idaho Power Co. also furnishes transmission services from the project facilities to most of the powerloads.

ARROWROCK DIVISION

Lands in the Arrowrock Division are bounded generally by the Snake and Boise Rivers and lie in the Boise Valley. About 165,000 irrigable acres are furnished a full water supply and 126,000 acres are furnished supplemental water. Project facilities of this division are Anderson Ranch Dam and Reservoir, Arrowrock Dam and Reservoir, both on the Boise River; the Boise River diversion dam which heads the main canal which flows into Lake Lowell, an offstream reservoir; and canals, laterals, and drains to serve the project. Hydroelectric installations include the Anderson Ranch and Boise River diversion powerplants and transmission facilities.

Anderson Ranch Dam and Reservoir, for purposes of irrigation allocation and repayable obligations, is carried as a separate unit from the Arrowrock division.

The repayable obligation of the water users in the Arrowrock division now totals \$13,682,811. The entire amount, with exception of congressional chargeoffs, is repayable under the terms of the repayment contracts with districts and individual water users within the division.

Operation and maintenance of the division, with exception of reserved works and power facilities was transferred to a board of control in April 1926. These reserved works and power facilities consist of Boise River Diversion Dam and powerplant; Arrowrock Dam and Reservoir; Anderson Ranch Dam and Reservoir and powerplant; and the transmission facilities.

PUBLIC NOTICES AND CONTRACTS

- 1915, June 1: Contract with Nampa-Meridian irrigation district for construction of drains and for storage in Arrowrock Reservoir.
- 1915, June 15: Contract Ilr-415 with Pioneer irrigation district for storage in Arrowrock Reservoir and for drainage work.
- 1917, July 2: Public notice. Construction charge \$80 per acre, payable in 20 graduated installments.
- 1917, August 13: Contract Ilr-412 with Farmers Union Ditch Co., Ltd., for Arrowrock Reservoir storage.
- 1917, December 3: Contract Ilr-411 with Farmers Cooperative Ditch Co. for Arrowrock Reservoir storage.

- 1918, February 9: Contract Ilr-416 with Settlers irrigation district for Arrowrock Reservoir storage.
- 1918, February 15: Contract Ilr-409 with Riverside irrigation district and Big Bend irrigation district for construction of drains and for storage in Arrowrock Reservoir.
- 1918, April 1: Public notice. Rate and terms same as 1917 public notice.
- 1919, February 18: Contract Ilr-416 with Settlers irrigation district for water right at \$70 per acre for 518.13 acres of project land.
- 1919, March 7: Public notice. Rate and terms same as 1917 public notice.
- 1924, January 2: Public notice. Construction charge \$77.44 per acre, payable in 20 graduated installments.
- 1926, March 1: Contract Ilr-16 with Riverside irrigation district, Ltd., for removal of slides.
- 1926, March 25: Contract Ilr-409 with Big Bend irrigation district; March 20, Ilr-54 with Boise-Kuna irrigation district; March 2, Ilr-414 with Nampa-Meridian irrigation district; September 27, Ilr-54 with New York irrigation district; and April 6, Ilr-417 with Wilder irrigation district, under which districts assumed obligations of individual water users. Contracts provide also for additional drainage work and for funding of delinquent operation and maintenance charges and penalties, and penalties on delinquent construction charges. Payments of construction charges by districts to be made semiannually on a crop production basis (5 percent plan—Fact Finders Act of 1924).
- 1951, November 30: Amendatory repayment contract, I74r-1685 with Big Bend irrigation district, I74r-1682 with Boise-Kuna irrigation district, I74r-1683 with Nampa-Meridian irrigation district; April 3, I74r-1566 with Wilder irrigation district, provided for payment under the normal and percentage plan of Reclamation Project Act of 1939.
- 1956, June 18: Contract 14-06-100-1005 with Big Bend irrigation district; June 19, contract 14-06-100-1007 with Nampa-Meridian irrigation district, and contract 14-06-100-1006 with Wilder irrigation district; June 25, contract 14-06-100-1008 with Boise-Kuna irrigation district, and contract 14-06-100-1009 with New York irrigation district for rehabilitation and betterment of the New York Canal.
- 1956, September 4: Amendatory repayment contract with the Riverside irrigation district for deferment of delinquent construction repayment installments due under contract of March 1, 1926.

The status of the Arrowrock division repayment on June 30, 1957, is as follows:

Total value of contracted repayment.....	\$15, 907, 811
Total matured charges.....	10, 504, 633
Total matured charges repaid.....	10, 504, 633
Total matured charges unpaid.....	0

Anderson Ranch Dam and Reservoir.—The Anderson Ranch Dam and Reservoir was con-

Construction repayment history—Arrowrock division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1918	\$9,999,756	\$222,487		\$222,487	\$200,208		\$200,208	\$200,208
1919	11,785,459	280,362		280,362	255,523		255,523	455,731
1920	11,971,064	217,364		217,364	209,157	\$27,663	236,820	692,551
1921	12,046,478	208,339		208,339	157,595	26,726	184,321	876,872
1922	11,845,423	416,337	¹ \$37,310	379,027	241,239	¹ 6,273	234,966	1,111,838
1923	12,167,269	419,291	1,331	420,622	193,443	86,691	280,134	1,391,972
1924	12,197,519	660,615	261	660,876	128,388	100,489	228,877	1,620,849
1925	12,186,212	683,793	¹ 19,244	664,549	119,972	106,529	226,501	1,847,350
1926	12,187,193	689,009	¹ 260	688,749	100,790	19,832	120,622	1,967,972
1927	12,186,988	209,445	¹ 1,772,340	¹ 1,562,895	205,973	675	206,648	2,174,620
1928	² 13,002,561	367,935	¹ 512	367,423	368,847	326	369,173	2,543,793
1929	13,002,450	379,532	¹ 297	379,235	374,849	989	375,838	2,919,631
1930	13,004,613	365,916	¹ 447	365,469	367,583		367,583	3,287,214
1931	13,004,613	343,225		343,225	342,250		342,250	3,629,464
1932	13,004,613	³ 198,908		198,908	189,448		189,448	3,818,912
1933	13,004,613	³ 34,446	¹ 34,598	¹ 152	26,913	¹ 12,511	14,402	3,833,314
1934	13,050,739	³ 7,318	¹ 24,521	¹ 17,203	7,318	¹ 24,245	¹ 16,927	3,816,387
1935	13,052,295	³ 6,951		6,951	6,951		6,951	3,823,338
1936	13,027,961	³ 5,554		5,554	5,554		5,554	3,828,892
1937	13,027,983	³ 15,221		15,221	14,015		14,015	3,842,907
1938	13,027,983	272,462		272,462	269,570		269,570	4,112,477
1939	13,027,983	271,697		271,697	269,286	481	269,767	4,382,244
1940	13,027,983	266,079		266,079	263,662		263,662	4,645,906
1941	13,027,983	256,682		256,682	253,923		253,923	4,899,829
1942	13,027,983	251,813		251,813	249,751	5	249,756	5,149,585
1943	13,027,983	264,561		264,561	262,143		262,143	5,411,728
1944	13,027,983	243,070		243,070	240,659		240,659	5,652,387
1945	13,027,983	310,039		310,039	307,628	7	307,635	5,960,022
1946	13,027,983	281,260		281,260	278,848	1	278,849	6,238,871
1947	⁴ 13,687,110	401,847	165,532	567,379	399,435	165,532	564,967	6,803,838
1948	13,687,110	440,680		440,680	438,272		438,272	7,242,110
1949	13,687,110	483,148		483,148	480,730		480,730	7,722,840
1950	13,687,110	539,781		539,781	537,364		537,364	8,260,204
1951	13,687,110	729,106		729,106	714,397	13,500	727,897	8,988,101
1952	13,682,811	331,786		331,786	330,577	1,208	331,785	9,319,886
1953	13,682,811	307,210		307,210	307,210		307,210	9,627,096
1954	13,682,811	179,234		179,234	179,234		179,234	9,806,330
1955	13,682,811	231,034		231,034	231,034		231,034	10,037,364
1956	13,682,811	221,044		221,044	176,605		176,605	10,213,969
1957	15,907,811	246,225	⁵ 33,768	212,457	290,664		290,664	10,504,633
Total		12,260,806	—1,756,173	10,504,633	9,997,008	507,625	10,504,633	
Collected				10,504,633				
Uncollected				0				

¹ Decrease. Decreases are due mainly through cancellation of water-right applications. Large decrease in 1927 due to cancellation of delinquent accounts and funding of penalties under 1926 contracts. Decreases in 1933 and 1934 due to deferral of charges under moratorium acts.

² Increase in obligation due to funding of delinquent operation and maintenance charges and penalties and construction penalties.

³ Moratorium period. Acts of April 1, 1932, March 3, 1933, March 27, 1934, June 13, 1935, and April 14, 1936. Charges deferred for calendar years 1931,

\$329,116; 1932, \$301,784; 1933, \$277,790; 1934, \$275,817; 1935, \$271,547; 1936, \$132,991.

⁴ An obligation of \$662,127.46 for repairs, resurfacing, and improvements of Arrowrock Dam, which under the act of April 22, 1940 (54 Stat. 155), is repayable in 20 equal annual instalments beginning in 1942 was carried under Anderson Ranch schedules prior to 1947. These were combined with the Arrowrock division schedule in 1947.

⁵ Decrease. Decrease due to deferral of construction repayment accruals.

structed for the benefit of the Boise project and private irrigation districts in the Boise Valley. Power is also generated at the dam. The total cost allocated to irrigation now under contract totals \$5,146,511, and is to be repaid in full by the various contractors.

The status of the Anderson Ranch Dam and Reservoir repayment, allocated to irrigation, as of June 30, 1957, is as follows:

Total value of contracted repayment	\$5,146,511
Total matured charges	745,176
Total matured charges repaid	742,074
Total matured charges unpaid	3,102

Arrowrock division—Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1918		
1919	\$208,828	\$171,669
1920	296,761	272,202
1921	409,710	328,279
1922	504,562	318,211
1923	421,457	347,430
1924	393,335	279,179
1925	364,879	158,277
1926	262,298	122,012
1927	¹ 842,385	21,469
1928	¹ 6,146	¹ 5,888
1929	37,526	37,742
1930	26,768	27,011
1931	9,519	850
1932	12,886	15,843
1933	6,770	12,147
1934	8,052	8,386
1935	8,346	8,346
1936	17,300	17,300
1937	9,104	9,104
1938	7,487	7,487
1939	12,386	12,386
1940	10,221	10,221
1941	9,698	9,697
1942	10,354	10,355
1943	10,655	10,655
1944	12,011	12,011
1945	12,183	12,183
1946	10,245	10,246
1947	11,934	11,934
1948	15,837	15,837
1949	24,013	24,013
1950	17,751	17,751
1951	28,472	28,472
1952	21,975	21,975
1953	19,902	19,902
1954	26,446	31,613
1955	29,369	29,702
1956	31,174	31,174
1957	34,138	39,221
Total	² 2,505,821	² 2,516,404

¹ Decrease.

² \$10,583 advance collections, fiscal year 1958.

REPAYMENT CONTRACTS, ANDERSON RANCH DAM

- 1941, July 2: Contract Ilr-1362 with Nampa-Meridian irrigation district, payable in 40 annual installments.
- 1941, August 1: Contract with Boise-Kuna irrigation district, payable in 40 annual installments.
- 1941, August 1: Contract Ilr-1361 with Wilder irrigation district, payable in 40 annual installments.
- 1941, August 7: Contract Ilr-1359 with New York irrigation district, payable in 40 annual installments.
- 1943, June 5: Contract with Farmers Union Ditch Co., Ltd., payable in 40 annual installments.
- 1943, July 26: Contract Ilr-1478 with Settlers irrigation district, payable in 40 annual installments.
- 1943, November 10: Contract with Pioneer irrigation district, payable in 40 annual installments.
- 1944, October 5: Contract Ilr-1480 with New Dry Creek Ditch Co., payable in 40 annual installments.
- 1945, February 26: Contract Ilr-1476 with South Boise Mutual Irrigation Co., Ltd., payable in 40 annual installments.

- 1945, June 25: Contract Ilr-1481 with Boise Valley Irrigation Ditch Co., payable in 40 annual installments.
- 1946, December 11: Contract Ilr-1544 with Big Bend irrigation district, payable in 40 annual installments.
- 1948, January 20: Contract Ilr-1512 with Ballentyne Ditch Co., payable in 40 annual installments.
- 1951, April 3: Amendment to original contract with Wilder irrigation district rescheduling payments.
- 1951, November 30: Amendment to original contract with Boise-Kuna irrigation district rescheduling payments.
- 1951, November 30: Amendment to original contract with Nampa-Meridian irrigation district rescheduling payments.
- 1951, November 30: Amendment to original contract with Big Bend irrigation district rescheduling payments.
- 1951, December 17: Amendment to original contract with Settlers irrigation district rescheduling payments.
- 1954, July 7: Contract 14-06-100-525 with Capital View irrigation district, payable in 40 annual installments.

PAYETTE DIVISION

Lands in the Payette division are located in the lower Payette River Valley and along the north slope of the Boise Valley. The lands are irrigated with water from the Payette River and surplus drainage from the Arrowrock division. There are 75,700 acres of presently irrigable land in the division, of which 22,500 acres are operated by the Emmett irrigation district. Project facilities are Deadwood Dam and Reservoir on the Deadwood River; Cascade Dam and Reservoir on the North Fork of the Payette River; Black Canyon Dam which serves as a diversion structure; the Black Canyon main canal, which serves both Payette and Boise Valley lands; the "C" line pump plant, which pumps water to 26,000 acres of higher Payette lands; and the necessary canals, laterals, and drains. Hydroelectric installations include the Black Canyon powerplant and transmission facilities to serve the "C" line pump plant and intertie with private lines.

The repayable obligation of the water users in the Payette division now totals \$9,439,254. The entire amount is repayable under the terms of the existing contracts with district and individual water users.

Operation and maintenance of the division, except for the reserved works, is carried on by the water users' organizations. The reserved works are the Cascade and Deadwood Dams and storage reservoirs, the Black Canyon diversion dam, and the power facilities.

Repayment contracts.—The existing contract with the Black Canyon irrigation district involves

Construction repayment history—Anderson Ranch Dam and Reservoir

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1942	¹ \$5,312,127	\$33,106		\$33,106	\$33,106		\$33,106	\$33,106
1943	5,312,127	33,107		33,107	33,107		33,107	66,213
1944	5,312,127	33,106		33,106	33,106		33,106	99,319
1945	5,312,127	33,106		33,106	33,106		33,106	132,425
1946	5,312,127	33,107		33,107	33,107		33,107	165,532
1947	² 4,650,000		² -\$165,532	-165,532		² -\$165,532	-165,532	0
1948	³ 5,085,705							
1949	³ 5,145,505							
1950	⁴ 5,145,737							
1951	5,145,737	32,489		32,489	32,114		32,114	32,114
1952	5,145,737	81,887		81,887	81,323		81,323	113,437
1953	5,145,737	127,050		127,050	127,767		127,767	241,204
1954	5,145,737	125,951		125,951	126,173		126,173	367,377
1955	³ 5,146,511	126,535		126,535	126,455		126,455	493,832
1956	5,146,511	126,134		126,134	106,644		106,644	600,476
1957	5,146,511	125,130		125,130	141,598		141,598	742,074
Total		910,708	-165,532	745,176	907,606	-165,532	742,074	
Collected				742,074				
Uncollected				3,102				

¹ The total obligation to repay includes \$662,127.46 representing the cost of repairs, resurfacing, and improvements of Arrowrock Dam which under the act of Apr. 22, 1940 (54 Stat. 155), is repayable in 20 equal instalments beginning in 1942. The cost of this work was included in the cost of Anderson Ranch Dam and Reservoir until 1947.

² Reduced by cost Arrowrock repairs which are now included in Arrowrock division.

³ Inclusion of additional construction contracts negotiated.

⁴ Contract amounts adjusted to maximum amounts in accordance with contract provisions.

the repayable allocation of construction cost of the irrigation and storage works and one-fourth the cost of rehabilitation and betterment of Black Canyon Dam. The Emmett irrigation district contract includes one-fourth the cost of rehabilitation and betterment of Black Canyon Dam.

CONTRACTS

- 1918, January 2: Contract with Black Canyon irrigation district for water rights for 6,873.83 acres at \$70 per acre, 20 graduated installments.
- 1921, November 18: Contract Ilr-251 with Emmett irrigation district to repay one-half of construction cost of Black Canyon Dam and pumping plant in 20 graduated installments.
- 1926, April 21: Contract Ilr-251 with Black Canyon irrigation district. Contract changed method of repayment to crop-production basis and funded delinquent charges and penalties.
- 1927, October 3: Contract Ilr-251 with Black Canyon irrigation district for construction of Payette division.
- 1929, September 18: Contract with Black Canyon irrigation district for drainage work.
- 1932, June 30: Contract with Emmett irrigation district extending time for repayment to 40 years, equal semiannual installments beginning 1932.
- 1934, August 20: Contract with Black Canyon irrigation district for drainage work.
- 1946, April 2: Contract I74r-203 with Drainage District No. 4 for drain construction.

1954, March 17: Amendment to original contract with Drainage District No. 4 to increase contract amount.

1954, September 2: Amendment to contract with Black Canyon irrigation district to increase contract amounts and change method of payment.

1955, October 4: Amendment to contract with Emmett irrigation district to increase contract amounts.

1956, April 12: Supplement to amendatory contract with Black Canyon irrigation district to conform its provisions to the rehabilitation and betterment program.

1956, June 4: Supplement to amendatory contract with Black Canyon irrigation district to provide for payment for equipment and supplies transferred to district.

The status of the Payette division repayment on June 30, 1957, is as follows:

Total value of contracted repayment	\$9,439,254
Total matured charges	1,342,963
Total matured charges repaid	1,342,963
Total matured charges unpaid	0

Rehabilitation and betterment contracts.—Cost of rehabilitation and betterment of Black Canyon Dam will be repaid one-fourth by Black Canyon irrigation district lands, one-fourth by Emmett irrigation district lands, and one-half from power revenues.

Construction repayment history—Notus unit, Black Canyon irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1922	\$481, 168							
1923	481, 168	\$9, 623		\$9, 623	\$6, 685		\$6, 685	\$6, 685
1924	481, 168	9, 623		9, 623	4, 963	\$613	5, 576	12, 261
1925	481, 168	9, 623		9, 623				12, 261
1926	481, 168	9, 623		9, 623				12, 261
1927	481, 393	3, 952	¹ —\$26, 233	¹ 22, 281	3, 952		3, 952	16, 213
1928	493, 162	8, 421		8, 421	8, 421		8, 421	24, 634
1929	493, 162	9, 279		9, 279	9, 279		9, 279	33, 913
1930	493, 162	9, 968		9, 968	9, 968		9, 968	43, 881
1931	493, 162	10, 482		10, 482	10, 482		10, 482	54, 363
1932	532, 074	² 5, 327		5, 327	5, 327		5, 327	59, 690
1933	532, 074	² 1, 965		1, 965	1, 965		1, 965	61, 655
1934	533, 578	(²)						61, 655
1935	542, 578	² 2, 044		2, 044	2, 044		2, 044	63, 699
1936	541, 747	(²)						63, 699
1937	541, 646	² 973		973				63, 699
1938	541, 646	12, 186		12, 186	10, 990	973	11, 963	75, 662
1939	541, 646	12, 530		12, 530	12, 530		12, 530	88, 192
1940	541, 646	12, 529		12, 529	11, 556		11, 556	99, 748
1941	541, 646	12, 187		12, 187	10, 993	2, 168	13, 161	112, 909
1942	541, 646	12, 186		12, 186	10, 989	1, 195	12, 184	125, 093
1943	541, 646	12, 873		12, 873	12, 873	1, 195	14, 068	139, 161
1944	541, 646	14, 763		14, 763	14, 763		14, 763	153, 924
1945	541, 646	25, 762		25, 762	25, 762		25, 762	179, 686
1946	541, 646	21, 981		21, 981	21, 981		21, 981	201, 667
1947	541, 646	25, 417		25, 417	25, 417		25, 417	227, 084
1948	541, 646	28, 168		28, 168	15, 279		15, 279	242, 363
1949	541, 646	32, 154		32, 154	30, 160		30, 160	272, 523
1950	541, 646	35, 831		35, 831	33, 992		33, 992	306, 515
1951	541, 646	39, 753		39, 753	24, 991		24, 991	331, 506
1952	541, 646	42, 849		42, 849	20, 710		20, 710	352, 216
1953	541, 646	46, 702		46, 702	30, 296		30, 296	382, 512
1954	541, 646	48, 354	³ —66, 753	—18, 399	19, 683	³ 4, 014	23, 697	406, 209
1955	547, 947	20, 600	⁴ —27, 754	—7, 154	20, 600	⁴ 179	20, 779	426, 988
1956	547, 947	20, 600		20, 600	20, 600		20, 600	447, 588
1957	547, 947	20, 600		20, 600	20, 600		20, 600	468, 188
Total Collected		588, 928	—120, 740	468, 188	457, 851	10, 337	468, 188	
Uncollected				0				

¹ Decrease. Cancellation of delinquent charges and funding of penalties under contract of Apr. 21, 1926.

² Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar

years 1931, \$11,096; 1932, \$10,543; 1933, \$11,569; 1934, \$11,569; 1935, \$11,913; 1936, \$5,584.

³ Deferment and waiver of penalties.

⁴ Adjusted by amendatory contract.

Notus division—Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1922		
1923		
1924		
1925		
1926	\$18, 723	\$14, 676
1927	2, 248	4, 328
1928	¹ 14, 305	¹ 12, 338
Total	6, 666	6, 666

¹ Decrease. Cancellation of delinquent charges and funding of penalties under contract of Apr. 21, 1926.

Payette division—Black Canyon irrigation district—Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1956	\$5, 071	\$5, 071
1957	8, 990	8, 990
Total	14, 061	14, 061

Construction repayment history—Second unit, Payette division, Emmett irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1927-----	\$1, 200, 000							
1928-----	1, 200, 000	\$24, 000	-----	\$24, 000	\$10, 726	-----	\$10, 726	\$10, 726
1929-----	1, 200, 000	24, 000	-----	24, 000	15, 306	\$13, 274	28, 580	39, 306
1930-----	1, 200, 000	24, 000	-----	24, 000	24, 000	8, 694	32, 694	72, 000
1931-----	1, 200, 000	24, 000	-----	24, 000	24, 000	-----	24, 000	96, 000
1932-----	1, 200, 000	48, 000	-----	48, 000	12, 760	-----	12, 760	108, 760
1933-----	¹ 809, 456	² 10, 010	³ \$35, 240	³ 25, 230	10, 010	-----	10, 010	118, 770
1934-----	809, 608	(²)	-----	-----	-----	-----	-----	118, 770
1935-----	810, 360	² 10, 010	-----	10, 010	10, 010	-----	10, 010	128, 780
1936-----	809, 608	(²)	³ 10, 010	³ 10, 010	-----	-----	-----	128, 780
1937-----	809, 608	² 10, 010	-----	10, 010	-----	-----	-----	128, 780
1938-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	148, 800
1939-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	168, 820
1940-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	188, 840
1941-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	208, 860
1942-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	228, 880
1943-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	248, 900
1944-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	268, 920
1945-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	288, 940
1946-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	308, 960
1947-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	328, 980
1948-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	349, 000
1949-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	369, 020
1950-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	389, 040
1951-----	809, 608	20, 019	-----	20, 019	20, 019	-----	20, 019	409, 059
1952-----	809, 608	20, 019	-----	20, 019	20, 019	-----	20, 019	429, 078
1953-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	449, 098
1954-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	469, 118
1955-----	809, 608	20, 020	-----	20, 020	20, 020	-----	20, 020	489, 138
1956-----	⁴ 1, 507, 093	20, 020	-----	20, 020	20, 020	-----	20, 020	509, 158
1957-----	1, 507, 093	20, 020	-----	20, 020	20, 020	-----	20, 020	529, 178
Total-----	-----	574, 428	— 45, 250	529, 178	507, 210	21, 968	529, 178	-----
Collected-----	-----	-----	-----	529, 178	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	0	-----	-----	-----	-----

¹ Obligation revised to actual cost of construction work.² Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1932, \$10,161; 1933, \$2,020; 1934, \$2,020; 1935, \$20,020; 1936, \$10,010.³ Decrease. Due to cancellation of delinquent charges under 1932 contract, and in 1936 to deferred charges under moratorium act.⁴ Amendatory repayment contract executed.

*Payette division—Emmett irrigation district—
Operation and maintenance assessments history*

Fiscal year	Accruals	Collections
1927		
1928	\$16,347	\$16,287
1929	2,421	2,481
1930	6,690	6,690
1931	5,591	5,591
1932	2,396	2,396
1933	2,064	2,064
1934	2,897	2,897
1935	3,000	0
1936	1,629	4,629
1937	2,378	2,378
1938	1,217	1,217
1939	2,388	2,388
1940	1,692	1,692
1941	2,665	2,665
1942	2,388	2,388
1943	1,777	1,777
1944	2,104	2,104
1945	2,332	2,332
1946	2,101	2,101
1947	6,396	6,396
1948	6,259	6,259
1949	9,157	9,157
1950	8,534	8,534
1951	9,285	9,285
1952	9,000	9,000
1953	5,779	5,779
1954	7,400	7,400
1955	9,562	9,562
1956	2,869	2,869
1957	9,539	9,539
Total	147,857	147,857

Construction repayment history—Balance of Second unit, Payette division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1946	\$7,000,000							
1947	¹ 7,036,500							
1948	7,036,500							
1949	7,036,500	\$23,123		\$23,123	\$23,123		\$23,123	\$23,123
1950	7,036,500	46,468		46,468	46,213		46,213	69,336
1951	7,036,500	70,523		70,523	70,268		70,268	139,604
1952	7,036,500	46,179		46,179	46,179		46,179	185,783
1953	7,036,500	46,179		46,179	46,179		46,179	231,962
1954	² 7,037,174	46,853		46,853	46,853		46,853	278,815
1955	³ 7,383,989	45,275	³ —\$11,155	34,120	45,275	³ —\$10,645	34,630	313,445
1956	7,383,989	45,275		45,275	45,275		45,275	358,720
1957	7,383,989	45,275	⁴ —58,623	—13,348	45,275	—58,623	—13,348	345,372
Total		415,150	—69,778	345,372	414,640	—69,268	345,372	
Collected				345,372				
Uncollected				0				

NOTE: Obligation in the amount of \$225 accrued and collected from M. M. Fuller in fiscal year 1924 is not included in construction repayment histories.

¹ Inclusion of contract with Drainage District No. 4.

² Contract with Drainage District No. 4 adjusted to actual costs.

³ Adjustments due to amendatory contract with Black Canyon Irrigation

district and application of construction credits to operation and maintenance deficit.

⁴ Construction charge collections reapplied to cover equipment in account 220.2.

Boise project repayment contract data, June 30, 1957

District	Total obligation of water users to repay	Matured value	Paid	Unpaid
Arrowrock division:				
Big Bend irrigation district	\$177,281.13	\$75,596.06	\$75,596.06	
Boise-Kuna irrigation district	4,371,406.11	2,472,207.66	2,472,207.66	
Nampa-Meridian irrigation district	3,633,457.00	2,503,212.09	2,503,212.09	
New York irrigation district	690,959.83	450,659.83	450,659.83	
Wilder irrigation district	5,333,236.51	3,592,061.58	3,592,061.58	
Other contractors	1,701,470.72	1,410,895.92	1,410,895.92	
Subtotal	15,907,811.30	10,504,633.14	10,504,633.14	
Payette division:				
Emmett irrigation district	1,507,093.30	529,177.90	529,177.90	
Black Canyon irrigation district	7,894,761.94	806,560.87	806,560.87	
Drainage district No. 4	37,174.31	6,999.31	6,999.31	
Individuals	225.00	225.00	225.00	
Subtotal	9,439,254.55	1,342,963.08	1,342,963.08	
Anderson Ranch Dam:				
Boise-Kuna irrigation district	1,380,209.71	205,117.47	205,117.47	
Nampa-Meridian irrigation district	1,143,550.12	169,946.52	169,946.52	
New York irrigation district	504,843.34	62,495.10	62,495.10	
Wilder irrigation district	1,540,114.84	228,879.89	228,879.89	
Pioneer irrigation district	313,038.00	39,290.49	36,268.14	\$3,022.35
Farmers Union Ditch Co	79,630.00	11,356.54	11,356.54	
New Dry Creek Ditch Co	18,020.00	2,928.25	2,928.25	
Settlers irrigation district	80,793.75	11,812.60	11,812.60	
Boise Valley Irrigation Ditch Co	13,370.00	2,172.63	2,172.63	
South Boise Mutual Irrigation Co	7,255.00	1,178.97	1,178.97	
Ballentyne Ditch Co	5,230.00	849.88	849.88	
Big Bend irrigation district	54,056.25	8,267.58	8,267.58	
Capital View irrigation district	6,400.00	880.00	800.00	80.00
Subtotal	5,146,511.01	745,175.92	742,073.57	3,102.35
Total, Boise project	30,493,576.86	12,592,772.14	12,589,669.79	3,102.35

RECLAMATION REPAYMENTS

Payout study

Fiscal year	Power										Irrigation		Recapitulation	
	Not operating revenues	Repayment components of net power revenues		Investment repayment from power revenues				Earned surplus (cumulative)	Net revenues from water users	Investment repayment		Net project revenues	Earned surplus (cumulative)	
		Interest 3 percent	Principal	Interest-bearing commercial electric plant		Interest-free aid to irrigation plant				Total obligation of water users to repay	Interest-free balance to be repaid			
				In service at end of year	Balance to be repaid	Required aid	Balance to be repaid							
Through:														
1956.....	\$3,032,965	\$367,473	\$2,221,841	\$4,948,600	\$2,726,769	\$2,413,197	\$1,969,546	0	\$12,227,914	\$30,493,577	\$18,265,663	\$15,200,879	0	
1957.....	333,000	81,803	129,190	4,954,000	2,602,969	12,651,688	12,208,037	0	364,858	30,493,577	17,900,805	575,851	0	
1958.....	333,000	78,089	251,013	4,954,000	2,348,058	12,651,688	12,208,037	0	455,574	30,493,577	17,455,231	778,574	0	
1959.....	345,800	70,442	273,358	4,954,000	2,072,700	12,651,688	12,208,037	0	559,995	30,493,577	16,895,636	905,395	0	
1960.....	345,000	62,181	282,819	4,954,000	1,789,881	12,651,688	12,208,037	0	596,901	30,493,577	16,296,735	943,940	0	
1961.....	353,200	53,696	299,504	4,954,000	1,490,377	12,651,688	12,208,037	0	596,260	30,493,577	15,700,475	939,416	0	
1962.....	368,500	44,711	323,789	4,954,000	1,166,588	12,651,688	12,208,037	0	570,916	30,493,577	15,129,559	939,416	0	
1963.....	376,100	34,998	341,102	4,954,000	825,486	12,651,688	12,208,037	0	570,853	30,493,577	14,558,706	946,953	0	
1964.....	376,100	24,765	351,335	4,954,000	474,151	12,651,688	12,208,037	0	570,853	30,493,577	13,987,853	946,953	0	
1965.....	376,100	14,225	367,873	4,954,000	112,276	12,651,688	12,208,037	0	570,853	30,493,577	13,417,000	946,953	0	
1966.....	376,100	3,368	112,276	4,954,000	0	12,651,688	11,947,481	0	570,853	30,493,577	12,846,147	946,953	0	
1967.....	376,100	0	0	4,954,000	0	12,651,688	11,571,481	0	570,853	30,493,577	12,275,294	946,953	0	
1968.....	376,100	0	0	4,954,000	0	12,651,688	11,195,381	0	489,648	30,493,577	11,785,646	865,748	0	
1969.....	376,100	0	0	4,954,000	0	12,651,688	10,819,281	0	474,371	30,493,577	11,311,275	850,471	0	
1970.....	376,100	0	0	4,954,000	0	12,651,688	10,443,181	0	473,140	30,493,577	10,838,135	849,240	0	
1971.....	376,100	0	0	4,954,000	0	12,651,688	10,067,081	0	449,180	30,493,577	10,388,955	825,280	0	
1972.....	376,100	0	0	4,954,000	0	12,651,688	9,690,981	0	411,996	30,493,577	9,976,959	788,096	0	
1973.....	376,100	0	0	4,954,000	0	12,651,688	9,314,881	0	411,996	30,493,577	9,564,963	788,096	0	
1974.....	376,100	0	0	4,954,000	0	12,651,688	8,938,781	0	411,996	30,493,577	9,152,967	788,096	0	
1975.....	376,100	0	0	4,954,000	0	12,651,688	8,562,681	0	410,221	30,493,577	8,742,746	786,321	0	
1976.....	376,100	0	0	4,954,000	0	12,651,688	8,186,581	0	368,557	30,493,577	8,371,189	744,657	0	
1977.....	376,100	0	0	4,954,000	0	12,651,688	7,810,481	0	342,483	30,493,577	7,983,708	718,583	0	
1978.....	376,100	0	0	4,954,000	0	12,651,688	7,434,381	0	331,233	30,493,577	7,689,223	718,583	0	
1979.....	376,100	0	0	4,954,000	0	12,651,688	7,058,281	0	231,233	30,493,577	7,457,990	607,333	0	
1980.....	376,100	0	0	4,954,000	0	12,651,688	6,682,181	0	231,233	30,493,577	7,229,727	607,333	0	
1981.....	376,100	0	0	4,954,000	0	12,651,688	6,306,081	0	231,233	30,493,577	6,996,524	607,333	0	
1982.....	376,100	0	0	4,954,000	0	12,651,688	5,929,981	0	231,233	30,493,577	6,794,291	607,333	0	
1983.....	376,100	0	0	4,954,000	0	12,651,688	5,553,881	0	231,233	30,493,577	6,593,098	607,333	0	
1984.....	376,100	0	0	4,954,000	0	12,651,688	5,177,781	0	231,233	30,493,577	6,391,925	607,333	0	
1985.....	376,100	0	0	4,954,000	0	12,651,688	4,801,681	0	231,233	30,493,577	6,190,822	607,333	0	
1986.....	376,100	0	0	4,954,000	0	12,651,688	4,425,581	0	231,233	30,493,577	5,989,329	607,333	0	
1987.....	376,100	0	0	4,954,000	0	12,651,688	4,049,481	0	231,233	30,493,577	5,788,333	607,333	0	
1988.....	376,100	0	0	4,954,000	0	12,651,688	3,673,381	0	231,233	30,493,577	5,587,333	607,333	0	
1989.....	376,100	0	0	4,954,000	0	12,651,688	3,297,281	0	231,233	30,493,577	5,386,333	607,333	0	
1990.....	376,100	0	0	4,954,000	0	12,651,688	2,921,181	0	231,233	30,493,577	5,185,333	607,333	0	
1991.....	376,100	0	0	4,954,000	0	12,651,688	2,545,081	0	178,360	30,493,577	4,984,333	554,460	0	
1992.....	376,100	0	0	4,954,000	0	12,651,688	2,168,981	0	123,055	30,493,577	4,783,333	500,791	0	
1993.....	376,100	0	0	4,954,000	0	12,651,688	1,792,881	0	123,055	30,493,577	4,582,333	494,155	0	
1994.....	376,100	0	0	4,954,000	0	12,651,688	1,416,781	0	121,905	30,493,577	4,381,333	495,005	0	
1995.....	376,100	0	0	4,954,000	0	12,651,688	1,040,681	0	121,176	30,493,577	4,244,640	497,276	0	
1996.....	376,100	0	0	4,954,000	0	12,651,688	664,581	0	119,364	30,493,577	4,123,464	497,276	0	
1997.....	376,100	0	0	4,954,000	0	12,651,688	288,481	0	119,364	30,493,577	4,003,900	495,664	0	
1998.....	376,100	0	0	4,954,000	0	12,651,688	0	0	119,429	30,493,577	3,884,471	495,529	0	
1999.....	376,100	0	0	4,954,000	0	12,651,688	0	0	118,333	30,493,577	3,766,138	494,433	0	
2000.....	376,100	0	0	4,954,000	0	12,651,688	0	0	839,819	30,493,577	3,657,267	484,971	0	
2001.....	376,100	0	0	4,954,000	0	12,651,688	0	0	108,871	30,493,577	3,548,396	484,971	0	
2002.....	376,100	0	0	4,954,000	0	12,651,688	0	0	1,215,919	30,493,577	3,439,525	108,871	0	
2003.....	376,100	0	0	4,954,000	0	12,651,688	0	0	1,902,019	30,493,577	3,334,660	104,563	0	
2004.....	376,100	0	0	4,954,000	0	12,651,688	0	0	1,908,119	30,493,577	3,232,136	102,826	0	
2005.....	376,100	0	0	4,954,000	0	12,651,688	0	0	2,444,219	30,493,577	3,129,310	102,826	0	
2006.....	376,100	0	0	4,954,000	0	12,651,688	0	0	102,826	30,493,577	3,026,480	99,767	0	
2007.....	376,100	0	0	4,954,000	0	12,651,688	0	0	99,767	30,493,577	2,929,546	99,767	0	
2008.....	376,100	0	0	4,954,000	0	12,651,688	0	0	82,807	30,493,577	2,832,736	82,807	0	
2009.....	376,100	0	0	4,954,000	0	12,651,688	0	0	82,807	30,493,577	2,739,929	82,807	0	
2010.....	376,100	0	0	4,954,000	0	12,651,688	0	0	82,807	30,493,577	2,647,122	82,807	0	
2011.....	376,100	0	0	4,954,000	0	12,651,688	0	0	82,807	30,493,577	2,554,315	82,807	0	
2012.....	376,100	0	0	4,954,000	0	12,651,688	0	0	82,807	30,493,577	2,461,508	82,807	0	
2013.....	376,100	0	0	4,954,000	0	12,651,688	0	0	82,807	30,493,577	2,368,701	82,807	0	
2014.....	376,100	0	0	4,954,000	0	12,651,688	0	0	82,807	30,493,577	2,275,894	82,807	0	

2014	0	4,954,000	0	12,651,888	0	6,105,219	82,807	30,493,577	82,807	6,105,219	82,807
2015	0	4,954,000	0	12,651,888	0	6,481,319	82,807	30,493,577	82,807	6,481,319	82,807
2016	0	4,954,000	0	12,651,888	0	6,857,419	82,807	30,493,577	82,807	6,857,419	82,807
2017	0	4,954,000	0	12,651,888	0	7,233,519	82,807	30,493,577	82,807	7,233,519	82,807
2018	0	4,954,000	0	12,651,888	0	7,609,619	82,807	30,493,577	82,807	7,609,619	82,807
2019	0	4,954,000	0	12,651,888	0	7,985,719	82,807	30,493,577	82,807	7,985,719	82,807
2020	0	4,954,000	0	12,651,888	0	8,361,819	82,807	30,493,577	82,807	8,361,819	82,807
2021	0	4,954,000	0	12,651,888	0	8,737,919	82,807	30,493,577	82,807	8,737,919	82,807
2022	0	4,954,000	0	12,651,888	0	9,114,019	82,807	30,493,577	82,807	9,114,019	82,807
2023	0	4,954,000	0	12,651,888	0	9,490,119	82,807	30,493,577	82,807	9,490,119	82,807
2024	0	4,954,000	0	12,651,888	0	9,866,219	82,807	30,493,577	82,807	9,866,219	82,807
2025	0	4,954,000	0	12,651,888	0	10,242,319	82,807	30,493,577	82,807	10,242,319	82,807
2026	0	4,954,000	0	12,651,888	0	10,618,419	82,807	30,493,577	82,807	10,618,419	82,807
2027	0	4,954,000	0	12,651,888	0	10,994,519	82,807	30,493,577	82,807	10,994,519	82,807
2028	0	4,954,000	0	12,651,888	0	11,370,619	82,807	30,493,577	82,807	11,370,619	82,807
2029	0	4,954,000	0	12,651,888	0	11,746,719	82,807	30,493,577	82,807	11,746,719	82,807
2030	0	4,954,000	0	12,651,888	0	12,122,819	82,807	30,493,577	82,807	12,122,819	82,807
2031	0	4,954,000	0	12,651,888	0	12,498,919	82,807	30,493,577	82,807	12,498,919	82,807
2032	0	4,954,000	0	12,651,888	0	12,875,019	82,807	30,493,577	82,807	12,875,019	82,807
2033	0	4,954,000	0	12,651,888	0	13,251,119	82,807	30,493,577	82,807	13,251,119	82,807
2034	0	4,954,000	0	12,651,888	0	13,627,219	82,807	30,493,577	82,807	13,627,219	82,807
2035	0	4,954,000	0	12,651,888	0	14,003,319	82,807	30,493,577	82,807	14,003,319	82,807
2036	0	4,954,000	0	12,651,888	0	14,379,419	82,807	30,493,577	82,807	14,379,419	82,807
2037	0	4,954,000	0	12,651,888	0	14,755,519	82,807	30,493,577	82,807	14,755,519	82,807
2038	0	4,954,000	0	12,651,888	0	15,131,619	82,807	30,493,577	82,807	15,131,619	82,807
2039	0	4,954,000	0	12,651,888	0	15,507,719	82,807	30,493,577	82,807	15,507,719	82,807
2040	0	4,954,000	0	12,651,888	0	15,883,819	82,807	30,493,577	82,807	15,883,819	82,807
2041	0	4,954,000	0	12,651,888	0	16,259,919	82,807	30,493,577	82,807	16,259,919	82,807
2042	0	4,954,000	0	12,651,888	0	16,636,019	82,807	30,493,577	82,807	16,636,019	82,807
2043	0	4,954,000	0	12,651,888	0	17,012,119	82,807	30,493,577	82,807	17,012,119	48,511
											48,511

BOULDER CANYON PROJECT

ALL-AMERICAN CANAL SYSTEM

YUMA, ARIZ.

The construction of the All-American Canal System for delivery of water to the Imperial and Coachella Valleys in California was authorized under the Boulder Canyon Project Act of December 21, 1928 (45 Stat. 1057).

Project features include the Imperial Dam and desilting works, the main All-American canals to the Imperial and Coachella Valleys, and the Coachella distribution system and protective works. The project was developed to provide substitute service to the Imperial Irrigation District in Imperial County, Calif., to which water was formerly delivered through a canal constructed partially in Mexico, to provide a supply of water to the Coachella Valley County Water District in Riverside County, Calif., and a supplemental supply to the city of San Diego. Although obligated for payment of construction and operation and maintenance costs, the city of San Diego has merged its water rights with the Metropolitan Water District for delivery above Parker Dam.

The cost of constructing the All-American Canal System, the Coachella distribution system, and appurtenant works was \$60,738,412.02 through June 30, 1957. Plans for the Pilot Knob Mesa development and minor drainage and flood protective works would bring the total cost to \$68,344,647.

This is allocated as follows:

Nonreimbursable or nonrecoverable:

Irrigation (act of Aug. 31, 1951)-----	\$3, 260, 650
Flood protection (act of Aug. 4, 1939)---	4, 838, 760

Reimbursable:

Irrigation-----	59, 779, 594
Municipal water-----	465, 643

Total-----	68, 344, 647
------------	--------------

Operation and maintenance of the Imperial and Laguna Dams has been retained by the United

States in accordance with a contract of March 4, 1952, the cost of which is financed primarily from advances by water users. Except for the Coachella Canal below engineer station 2604, which has been transferred to Coachella Valley County water district, the All-American Canal is being operated and maintained by the Imperial irrigation district.

Repayment contracts.—The cost of constructing the All-American Canal system and appurtenant works is for repayment by Imperial irrigation district, Coachella Valley County water district, and the city of San Diego, under contracts dated respectively December 1, 1932, October 15, 1934, and October 2, 1934. Works were declared completed in 1952 and repayment of construction charges by the contractors commenced on March 1, 1955. Imperial irrigation district has made payments of \$1,315,522.42 from net power proceeds in accordance with articles 14 and 32 of the contract of December 1, 1932. \$625,500.03 of this amount has been applied against payments due, leaving \$690,022.39 for application against future accruals.

CONTRACTS

1932, December 1: Imperial irrigation district. Contract Ilr-747. Construction obligation of \$25,020,000.90, repayable in 40 annual installments at rate of 1 percent per year for the first 5 years, 2 percent per year for the next 10 years, and 3 percent per year for the last 25 years. The initial payment date was March 1, 1955, and as of June 30, 1957, all payments were current.

1934, October 2: City of San Diego. Contract Ilr-1151. Construction obligation of \$465,642.68, repayable in 38 annual installments at rate of 1 percent per year for first 5 years, 2 percent per year for the next 10 years, 3 percent per year for the next 21 years, and 6 percent per year for the last 2 years. The initial payment date was March 1, 1955, and as of June 30, 1957, all payments were current.

934, October 15: Coachella Valley County water district. Contract Ilr-781. Construction obligation of \$13,458,562.03, repayable in 40 annual installments at rate of 1 percent per year for first 5 years, 2 percent per year for next 10 years, and 3 percent per year for last 25 years. The initial payment date was March 1, 1955, and as of June 30, 1957, all payments were current.

952, March 4: Imperial irrigation district. Contract amendatory and supplemental to contract of December 1, 1932, declaring works completed.

955, December 27: Coachella Valley County water district. Contract supplemental to contract of October 15, 1934. Provides that district may hold to maturity certain United States savings bonds purchased by power rentals received for power rights and privileges on All-American Canal, at which time the proceeds therefrom are to be paid to the United States for deposit in the Colorado River Dam fund, and applied against the installment payments to become due under the 1934 contract.

The current allocation of costs of Imperial Dam and desilting works, the main All-American Canal, and the Coachella Branch of the All-American Canal to the three California contractors is as follows:

Imperial irrigation district.....	\$25, 020, 000. 90
City of San Diego.....	465, 642. 68
Coachella Valley County water district..	13, 458, 562. 03

A proportionate share of Imperial Dam costs is repayable by Gila project contractors.

Distribution system—Coachella division.—The irrigation distribution system in the Coachella Valley was constructed at a total estimated cost of \$16,760,650. However, the contract of December 22, 1947, with the Coachella Valley County

water district indicated that the distribution system would be constructed at a cost not to exceed \$13.5 million. Pursuant to the act of August 31, 1951 (65 Stat. 248), it was determined by the courts that the district would not be held liable for the costs in excess of \$13.5 million. The non-recoverable portion of the distribution system costs, therefore, is \$3,260,650. In addition, flood protective works costing \$4,838,759.63 were declared nonreimbursable in accordance with the act of August 4, 1939 (53 Stat. 1187).

The reimbursable cost of the Coachella Valley distribution system, totaling \$13,500,000, is to be allocated for repayment by irrigation blocks over a 40-year period following the end of an 8-year development period for each block. The initial payment will be due from irrigation blocks 1 and 2 on March 1, 1959, from block 3 on March 1, 1960, from block 4 on March 1, 1961, and from blocks 5 and 6 on March 1, 1963. However, an allocation of costs among blocks has not been made pending the outcome of negotiations between the Coachella Valley County water district and the Bureau of Indian Affairs concerning the furnishing of water to approximately 10,000 acres of Indian lands and the possible establishment of an additional block or blocks for those lands.

The status of repayment of the All-American Canal System on June 30, 1957, is as follows:

Total value of contracted repayment....	\$52, 444, 205. 61
Total matured charges.....	973, 605. 16
Total matured charges repaid.....	973, 605. 16
Total matured charges unpaid.....	0

Construction repayment history—Imperial irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			Cumulative total
		Current year	Adjustments	Total	Current year	Adjustments	Total	
1949.....					\$317, 266		\$317, 266	\$317, 266
1950.....					97, 246		97, 246	414, 512
1951.....					85, 190		85, 190	499, 702
1952.....					199, 604		199, 604	699, 306
1953.....					103, 929		103, 929	803, 235
1954.....					175, 605		175, 605	978, 840
1955.....	\$25, 020, 001	\$125, 100		\$125, 100	163, 721		163, 721	1, 142, 561
1956.....	25, 020, 001	250, 200		250, 200	57, 460		57, 460	1, 200, 021
1957.....	25, 020, 001	250, 200		250, 200	115, 501		115, 501	1, 315, 522
Total.....		625, 500		625, 500	1, 315, 522		1, 315, 522	
Collected.....				1, 315, 522				
Excess ¹				— 690, 022				

¹ Collections represent advance payments from Imperial Irrigation district's net power proceeds applied in accordance with arts. 14 and 32 of the contract dated Dec. 1, 1932.

Construction repayment history—Coachella Valley County water district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			Cumulative total
		Current year	Adjustments	Total	Current year	Adjustments	Total	
1955.....	\$13, 410, 014	\$67, 050	-----	\$67, 050	\$68, 394	-----	\$68, 394	\$68, 394
1956.....	13, 458, 562	134, 100	-----	134, 100	132, 756	-----	132, 756	201, 150
1957.....	13, 458, 562	134, 586	\$728	135, 314	135, 314	-----	135, 314	336, 464
Total.....	-----	335, 736	728	336, 464	336, 464	-----	336, 464	-----
Collected.....	-----	-----	-----	336, 464	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	0	-----	-----	-----	-----

Construction repayment history—city of San Diego

Fiscal year	Total obligation of water users to repay	Accruals			Collections			Cumulative total
		Current year	Adjustments	Total	Current year	Adjustments	Total	
1955.....	\$465, 643	\$2, 328	-----	\$2, 328	\$2, 328	-----	\$2, 328	\$2, 328
1956.....	465, 643	4, 657	-----	4, 657	4, 657	-----	4, 657	6, 985
1957.....	465, 643	4, 656	-----	4, 656	4, 656	-----	4, 656	11, 641
Total.....	-----	11, 641	-----	11, 641	11, 641	-----	11, 641	-----
Collected.....	-----	-----	-----	11, 641	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	0	-----	-----	-----	-----

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1952.....	\$36, 293	\$36, 293
1953.....	51, 332	51, 332
1954.....	43, 997	43, 997
1955.....	49, 002	47, 388
1956.....	49, 540	49, 540
1957.....	45, 504	45, 504
Total.....	275, 668	274, 054

*Payout study—All-American Canal System*¹

Fiscal year	Net revenue from contractors				Investment repayment	
	Imperial irrigation district	Coachella Valley County water district	City of San Diego	Total	Total contract obligation	Interest free balance to be paid
1958-----	\$250, 200. 01	\$134, 585. 62	\$4, 656. 43	\$389, 442. 06	\$38, 944, 205. 61	\$37, 581, 158. 39
1959-----	250, 200. 01	134, 585. 62	4, 656. 43	389, 442. 06	38, 944, 205. 61	37, 191, 716. 33
1960-----	375, 300. 02	201, 878. 43	6, 984. 65	584, 163. 10	38, 944, 205. 61	36, 607, 553. 23
1961-----	500, 400. 02	269, 171. 24	9, 312. 86	778, 884. 12	38, 944, 205. 61	35, 828, 669. 11
1962-----	500, 400. 02	269, 171. 24	9, 312. 86	778, 884. 12	38, 944, 205. 61	35, 049, 784. 99
1963-----	500, 400. 02	269, 171. 24	9, 312. 86	778, 884. 12	38, 944, 205. 61	34, 270, 900. 87
1964-----	500, 400. 02	269, 171. 24	9, 312. 86	778, 884. 12	38, 944, 205. 61	33, 492, 016. 75
1965-----	500, 400. 02	269, 171. 24	9, 312. 86	778, 884. 12	38, 944, 205. 61	32, 713, 132. 63
1966-----	500, 400. 02	269, 171. 24	9, 312. 86	778, 884. 12	38, 944, 205. 61	31, 934, 248. 51
1967-----	500, 400. 02	269, 171. 24	9, 312. 86	778, 884. 12	38, 944, 205. 61	31, 155, 364. 39
1968-----	500, 400. 02	269, 171. 24	9, 312. 86	778, 884. 12	38, 944, 205. 61	30, 376, 480. 27
1969-----	500, 400. 02	269, 171. 24	9, 312. 86	778, 884. 12	38, 944, 205. 61	29, 597, 596. 15
1970-----	625, 500. 03	336, 464. 05	11, 641. 07	973, 605. 15	38, 944, 205. 61	28, 623, 991. 00
1971-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	27, 455, 664. 83
1972-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	26, 287, 338. 66
1973-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	25, 119, 012. 49
1974-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	23, 950, 686. 32
1975-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	22, 782, 360. 15
1976-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	21, 614, 033. 98
1977-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	20, 445, 707. 81
1978-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	19, 277, 381. 64
1979-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	18, 109, 055. 47
1980-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	16, 940, 729. 30
1981-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	15, 772, 403. 13
1982-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	14, 604, 076. 96
1983-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	13, 435, 750. 79
1984-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	12, 267, 424. 62
1985-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	11, 099, 098. 45
1986-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	9, 930, 772. 28
1987-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	8, 762, 446. 11
1988-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	7, 594, 119. 94
1989-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	6, 425, 793. 77
1990-----	750, 600. 03	403, 756. 86	13, 969. 28	1, 168, 326. 17	38, 944, 205. 61	5, 257, 467. 60
1991-----	750, 600. 03	403, 756. 86	20, 953. 92	1, 175, 310. 81	38, 944, 205. 61	4, 082, 156. 79
1992-----	750, 600. 03	403, 756. 86	27, 938. 56	1, 182, 295. 45	38, 944, 205. 61	2, 899, 861. 34
1993-----	750, 600. 03	403, 756. 86	13, 969. 20	1, 168, 326. 09	38, 944, 205. 61	1, 731, 535. 25
1994-----	750, 600. 03	403, 756. 86	-----	1, 154, 356. 89	38, 944, 205. 61	577, 178. 36
1995-----	375, 299. 90	201, 878. 46	-----	577, 178. 36	38, 944, 205. 61	0
Total-----	24, 394, 500. 87	13, 122, 097. 98	454, 001. 60	37, 970, 600. 45	38, 944, 205. 61	-----

¹ Main All-American Canal and Coachella Branch only (California contractors).

BOULDER CANYON PROJECT

HOOVER DAM AND POWERPLANT

BOULDER CITY, NEV.

The Boulder Canyon project was authorized by the act of December 21, 1928 (45 Stat. 1057), subject to the terms of the Colorado River Compact. The Boulder Canyon project Adjustment Act (54 Stat. 774) dated July 19, 1940, provided for certain changes in the original plan. The act of June 29, 1948 (62 Stat. 1112), provided for the deferment of repayment of certain nonproject costs.

The project was constructed primarily for (1) controlling floods, (2) improving navigation and regulation of the Colorado River, (3) providing for storage and delivery of stored water for reclamation of public lands and other beneficial uses within the United States, and (4) generating electric energy. The main features of the project include the dam and reservoir, hydroelectric plant, and high-voltage switchyards. Electric energy is delivered to the allottees at the high-voltage switchyards and transmitted from that point to loads in Arizona, California, and Nevada over facilities which are owned or arranged for by the power allottees.

The construction cost to May 31, 1957, was \$167,548,999, and the total cost of the project is estimated to be \$174,205,934. Expenditures were made from the Colorado River Dam fund created by advances from the general treasury on appropriation by Congress through fiscal year 1950. Thereafter expenditures have been made from appropriations for construction and rehabilitation, Bureau of Reclamation. The major plant has been substantially completed and placed in operation and is now serving the southwestern area of the United States with large quantities of

power. With the installation of generating unit N-8 currently scheduled for fiscal year 1963, the project will be completed. Through the sale of power and other incidental revenues, the project has accumulated \$84,157,097 as of May 31, 1957, which has been used for reimbursement to the United States Treasury of advances and interest on advances to the Colorado River Dam fund and other construction appropriations. In addition, \$12,000,000 has been paid or reserved for payment to the States of Arizona and Nevada in lieu of taxes and \$10,000,000 to the Colorado River development fund for investigations of potential projects in the Colorado River Basin. With the exception of \$25,000,000 allocated to flood control and the nonproject costs determined in accordance with the act of June 29, 1948 (62 Stat. 1112), the cost of construction, operation, maintenance, and replacement will be repaid to the United States in 50 years with interest at 3 percent per annum by revenues from the sale of power and water. These revenues are guaranteed by formal contracts with the power allottees with rates based on the repayment of construction cost within a 50-year period. Thereafter, repayment of the flood control and nonproject cost allocation is to be made from net revenues.

The dam and powerplant building and their appurtenances are owned, operated, and maintained by the United States. The generating, transforming and switching facilities are owned by the United States, but are operated and maintained by the Department of Water and Power of the city of Los Angeles and the Southern

California Edison Co. as agents for the United States.

The allocation of the construction cost is summarized as follows:

Total estimated cost-----	\$174, 205, 934
Commercial power-----	145, 955, 612
Flood control-----	25, 000, 000
Nonprojects cost-----	3, 250, 322

Contracts for sale of power (as amended to Feb. 13, 1957)

Contract No.	Contractor	Firm energy allocation, percent	Date of execution	Date of termination
Ilr-1334	Department of water and power-----	17. 5554	May 29, 1941	May 31, 1987
Ilr-1336	Metropolitan water district-----	35. 2517	do-----	Do.
Ilr-1455	State of Arizona-----	17. 6259	Nov. 23, 1945	Do.
Ilr-1338	State of Nevada-----	17. 6259	May 29, 1941	Do.
Ilr-1335	Southern California Edison Co-----	7. 0503	do-----	Do.
Ilr-1340	City of Glendale-----	1. 8475	do-----	Do.
Ilr-1337	City of Pasadena-----	1. 5847	do-----	Do.
Ilr-1341	California Electric Power Co-----	. 8813	do-----	Do.
Ilr-1339	City of Burbank-----	. 5573	do-----	Do.

NOTES: Metropolitan water district has the first right to all unused firm and all secondary energy for pumping only. The city of Los Angeles, Southern California Edison Co., and California Electric Power Co. are obligated to take and/or pay for respectively 55-40-5 percent of all firm energy allocated to the States but unused by them or metropolitan water district. The city and companies have also the right to use in the same respective percentages, secondary energy unused by metropolitan water district.

United States reserves up to 20,000 kilowatts to be deducted equally out of the allotments to the city of Los Angeles and the Southern California Edison Co. United States can use reserved power for its own use or for resale in its construction or operating camps, or for any purpose within an area defined in the regulations.

Allocation to the cities of Burbank, Pasadena, and Glendale is generated and transmitted by the city of Los Angeles.

RECLAMATION REPAYMENTS

Payout study

Year of study	Operating year ending May 31—	Net revenue	Reserved for pay- ments to States and Colorado River develop- ment fund	Net income for amortization	Investment repayment from power revenues—Interest-bearing allocation to commercial electric plant				Earned sur- plus, cumula- tive
					Interest, 3 percent	Principal	In service at end of year	Balance to be repaid	
0	1937	\$247, 723	---	\$247, 723	0	\$247, 723	\$87, 834, 206	\$87, 586, 483	0
1	1938	1, 299, 166	---	1, 299, 166	\$2, 621, 060	(1, 321, 894)	93, 608, 054	94, 682, 225	0
2	1939	2, 571, 109	---	2, 571, 109	2, 815, 260	(244, 151)	99, 273, 246	100, 591, 568	0
3	1940	3, 127, 636	---	3, 127, 636	2, 847, 036	280, 600	103, 390, 525	104, 428, 247	0
4	1941	4, 595, 566	---	4, 595, 566	3, 014, 916	1, 580, 650	108, 278, 400	107, 735, 406	0
5	1942	4, 871, 626	\$2, 200, 000	2, 671, 626	3, 059, 092	(387, 466)	111, 881, 168	111, 725, 706	0
6	1943	5, 473, 958	3, 300, 000	2, 173, 958	3, 317, 433	(1, 143, 475)	116, 680, 278	117, 668, 291	0
7	1944	6, 033, 080	1, 100, 000	4, 933, 080	3, 628, 599	1, 304, 481	119, 450, 903	119, 134, 435	0
8	1945	6, 469, 374	1, 100, 000	5, 369, 374	3, 525, 496	1, 843, 878	120, 871, 525	118, 711, 179	0
9	1946	6, 236, 071	2, 200, 000	4, 036, 071	3, 545, 965	1, 490, 106	120, 871, 525	118, 221, 073	0
10	1947	5, 753, 790	1, 100, 000	4, 653, 790	3, 549, 762	1, 104, 028	122, 512, 528	118, 758, 048	0
11	1948	6, 130, 022	1, 100, 000	5, 030, 022	3, 547, 328	1, 482, 694	122, 951, 151	117, 713, 977	0
12	1949	6, 757, 995	1, 100, 000	5, 657, 995	3, 536, 822	2, 121, 173	124, 570, 475	117, 212, 128	0
13	1950	6, 424, 514	1, 100, 000	5, 324, 514	3, 610, 526	1, 713, 988	129, 244, 809	120, 172, 474	0
14	1951	5, 913, 394	1, 100, 000	4, 813, 394	3, 599, 190	1, 214, 204	133, 334, 808	123, 048, 269	0
15	1952	6, 356, 016	1, 100, 000	5, 256, 016	3, 557, 429	1, 698, 587	140, 445, 280	128, 460, 155	0
16	1953	7, 411, 964	1, 100, 000	6, 311, 964	3, 845, 308	2, 466, 656	140, 895, 465	126, 443, 684	0
17	1954	6, 284, 936	1, 100, 000	5, 184, 936	3, 789, 871	1, 395, 065	141, 122, 613	125, 275, 767	0
18	1955	5, 709, 405	1, 100, 000	4, 609, 405	3, 780, 053	1, 329, 352	141, 326, 741	124, 650, 522	0
19	1956	1, 687, 488	1, 100, 000	587, 488	3, 229, 465	(2, 641, 977)	138, 264, 379	124, 230, 058	0
20	1957	7, 782, 980	1, 100, 000	6, 682, 980	3, 584, 534	3, 098, 446	139, 298, 677	123, 766, 660	0
Adjustments		— 980, 716	0	— 980, 716	— 980, 16				
Subtotal		106, 157, 097	22, 000, 000	84, 157, 097	67, 024, 429	17, 132, 668	139, 298, 677	123, 766, 660	0
21	1958	6, 017, 641	1, 100, 000	4, 917, 641	3, 713, 000	1, 204, 641	139, 386, 776	122, 650, 118	0
22	1959	7, 362, 051	1, 100, 000	6, 262, 051	3, 679, 503	2, 582, 548	139, 554, 776	120, 235, 570	0
23	1960	7, 357, 104	1, 100, 000	6, 257, 104	3, 607, 067	2, 650, 037	139, 749, 776	117, 780, 533	0
24	1961	7, 350, 570	1, 100, 000	6, 250, 570	3, 533, 416	2, 717, 154	142, 264, 602	117, 578, 205	0
25	1962	7, 316, 288	1, 100, 000	6, 216, 288	3, 527, 346	2, 688, 942	144, 900, 482	117, 525, 143	0
26	1963	7, 476, 150	1, 100, 000	6, 376, 150	3, 525, 745	2, 850, 405	145, 955, 612	115, 769, 868	0
27	1964	7, 462, 370	1, 100, 000	6, 362, 370	3, 473, 096	2, 889, 274	145, 955, 612	112, 880, 594	0
28	1965	7, 458, 273	1, 100, 000	6, 358, 273	3, 386, 418	2, 971, 855	145, 955, 612	109, 908, 739	0
29	1966	7, 455, 426	1, 100, 000	6, 355, 426	3, 297, 262	3, 058, 164	145, 955, 612	106, 850, 575	0
30	1967	7, 452, 579	1, 100, 000	6, 352, 579	3, 205, 517	3, 147, 062	145, 955, 612	103, 703, 513	0
31	1968	7, 449, 732	1, 100, 000	6, 349, 732	3, 111, 105	3, 238, 627	145, 955, 612	100, 464, 886	0
32	1969	7, 446, 885	1, 100, 000	6, 346, 885	3, 013, 947	3, 332, 938	145, 955, 612	97, 131, 948	0
33	1970	7, 442, 787	1, 100, 000	6, 342, 787	2, 913, 958	3, 428, 829	145, 955, 612	93, 703, 119	0
34	1971	7, 439, 940	1, 100, 000	6, 339, 940	2, 811, 094	3, 528, 846	145, 955, 612	90, 174, 273	0
35	1972	7, 437, 093	1, 100, 000	6, 337, 093	2, 705, 228	3, 631, 865	145, 955, 612	86, 542, 408	0
36	1973	7, 434, 246	1, 100, 000	6, 334, 246	2, 596, 272	3, 737, 974	145, 955, 612	82, 804, 434	0
37	1974	7, 431, 399	1, 100, 000	6, 331, 399	2, 484, 133	3, 847, 266	145, 955, 612	78, 957, 168	0
38	1975	7, 428, 552	1, 100, 000	6, 328, 552	2, 368, 715	3, 959, 837	145, 955, 612	74, 997, 331	0
39	1976	7, 421, 205	1, 100, 000	6, 321, 205	2, 249, 920	4, 071, 285	145, 955, 612	70, 926, 046	0
40	1977	7, 409, 608	1, 100, 000	6, 309, 608	2, 127, 781	4, 181, 827	145, 955, 612	66, 744, 219	0
41	1978	7, 398, 011	1, 100, 000	6, 298, 011	2, 002, 327	4, 295, 684	145, 955, 612	62, 448, 535	0
42	1979	7, 386, 414	1, 100, 000	6, 286, 414	1, 873, 456	4, 412, 958	145, 955, 612	58, 035, 577	0
43	1980	7, 374, 817	1, 100, 000	6, 274, 817	1, 741, 067	4, 533, 750	145, 955, 612	53, 501, 827	0
44	1981	7, 363, 220	1, 100, 000	6, 263, 220	1, 605, 055	4, 658, 165	145, 955, 612	48, 843, 662	0

45	1982	7,351,622	1,100,000	6,251,622	1,465,310	4,786,312	145,955,612	44,057,350	0
46	1983	7,340,025	1,100,000	6,240,025	1,321,721	4,918,304	145,955,612	39,139,046	0
47	1984	7,328,428	1,100,000	6,228,428	1,174,171	5,054,257	145,955,612	34,084,789	0
48	1985	7,316,831	1,100,000	6,216,831	1,022,544	5,194,287	145,955,612	28,890,502	0
49	1986	7,305,234	1,100,000	6,205,234	866,715	5,338,519	145,955,612	23,551,983	0
50	1987	7,293,648	1,100,000	6,193,648	706,559	5,487,089	145,955,612	18,064,894	0
Total		326,665,246	55,000,000	271,665,246	142,133,877	129,531,369	145,955,612	18,064,894	0

BUFFALO RAPIDS PROJECT

GLENDIVE, MONT.

The Buffalo Rapids project, located along the Yellowstone River in Custer, Dawson, and Prairie Counties, Mont., consists of two divisions.

Glendive unit was approved by the President, September 27, 1937, under Emergency Relief Act of 1937. Glendive Extension was approved by the President May 15, 1940, under Water Conservation and Utilization Program Act of May 10, 1939 (53 Stat. 685). Glendive Unit and Extension constitute the First Division.

Construction of the Second Division consisting of Shirley, Terry, and Fallon units was approved by the President on October 11, 1939, and May 15, 1940, under the water conservation and utilization program. The act of October 10, 1949 (63 Stat. 725), authorized the Secretary of the Interior to complete the construction of irrigation facilities including necessary drainage works on the First and Second Divisions of the project.

Major works for the project are:

First Division: An intake channel of 1,000 feet, pumping plant with a capacity of 330 cubic feet per second and 103-foot lift; 35 miles of canal and 58 miles of laterals. Drainage system is being constructed as needed.

Second Division: Shirley unit—pumping plant with a capacity of 111 cubic feet per second and 51-foot lift, 13.3 miles of canal, and 15.7 miles of laterals. Terry unit—pumping plant with a capacity of 61.5 cubic feet per second and 109-foot lift, 7.5 miles of canal, and 15.4 miles of laterals. Fallon unit—pumping plant with a capacity of 72 cubic feet per second and 45-foot lift, 6.8 miles of canal, and 8.0 miles of laterals.

Allocation and repayment of costs:

	<i>First Division</i>	<i>Second Division</i>	<i>Total</i>
Total construction cost.....	\$2,604,098	\$2,601,305	\$5,205,403
Operation and maintenance deficit.....	15,292	32,849	48,141
Total estimated cost.....	2,619,390	2,634,154	5,253,544
Allocation of costs to irrigation.....	2,619,390	2,634,154	5,253,544
Irrigation repayment.....	930,000	696,000	1,626,000
Water users equity.....	12,360	9,145	21,505
Nonreimbursable ¹	1,677,030	1,929,009	3,606,039

¹ Includes Department of Agriculture costs for First Division, \$232,328, and Second Division, \$323,008. Authorized by act of Oct. 10, 1949 (Public Law 336, 81st Cong.).

The irrigation districts have assumed the operation and maintenance of the district works through a board of control.

Repayment contracts.—Repayment contracts were executed March 22, 1954, with Buffalo Rapids irrigation districts No. 1 and No. 2. The contracts provide for the repayment of a \$60 total obligation per irrigable acre over a 60-year period, pursuant to the act of October 10, 1949.

PUBLIC NOTICES AND CONTRACTS

- 1940, May 3: Public notice. Temporary water rental charge for the irrigation season of 1940 and thereafter until further notice will be \$1 per acre-foot under approved applications.
- 1947, June 9: Public notice. Temporary water rental charge for the irrigation season of 1947 and thereafter until further notice will be \$1 per acre-foot when available under approved applications for irrigable lands in the Shirley and Terry units of the Second Division of the Buffalo Rapids project.
- 1954, March 22: Repayment contract No. 14-06-600-1216 with Buffalo Rapids irrigation district No. 1 and No. 14-06-600-1217 with Buffalo Rapids irrigation district No. 2, under which each of the districts

agree to pay a total construction obligation of \$60 per irrigable acre over a period of 60 years, not to exceed a total of \$930,000 for district No. 1 and \$696,000 for district No. 2, these amounts to be determined at the time the Secretary announces completion of the district works when such irrigable acreage is to be determined.

Status of the two irrigation district repayment contracts as of June 30, 1957, is as follows:

District No. 1:

Total value of contracted repayment.....	\$930, 000
Total matured charges.....	40, 500
Total matured charges repaid.....	33, 850
Total matured charges unpaid.....	6, 650

District No. 2:

Total value of contracted repayment.....	696, 000
Total matured charges.....	25, 800
Total matured charges repaid.....	21, 500
Total matured charges unpaid.....	4, 300

Construction repayment history

IRRIGATION DISTRICT NO. 1

Fiscal year	Total obligation	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955.....	\$930, 000	\$13, 300	-----	\$13, 300	\$6, 650	-----	\$6, 650	\$6, 650
1956.....	930, 000	13, 300	-----	13, 300	13, 300	-----	13, 300	19, 950
1957.....	930, 000	13, 300	¹ \$600	13, 900	13, 300	¹ \$600	13, 900	33, 850
Total.....		39, 900	600	40, 500	39, 000	600	33, 850	-----
Collected.....				33, 850				-----
Uncollected.....				6, 650				-----

IRRIGATION DISTRICT NO. 2

1955.....	\$696, 000	\$8, 600	-----	\$8, 600	\$4, 300	-----	\$4, 300	\$4, 300
1956.....	696, 000	8, 600	-----	8, 600	8, 600	-----	8, 600	12, 900
1957.....	696, 000	8, 600	-----	8, 600	8, 600	-----	8, 600	21, 500
Total.....		25, 800	-----	25, 800	21, 500	-----	21, 500	-----
Collected.....				21, 500				-----
Uncollected.....				4, 300				-----

¹ Application of construction payments received from lands purchased for subdividing.

BUFORD-TRENTON PROJECT

WILLISTON, N. DAK.

This project was first authorized on January 23, 1906, by the Secretary of the Interior under the Reclamation Act of June 17, 1902. Under the act of May 26, 1926 (44 Stat. 653), costs in the amount of \$221,423 were charged off in the accounts of the United States as a loss to the Reclamation fund. The balance of the construction costs, \$1,999, had been reimbursed from project revenues.

Construction of this project with some change in area and in plans was approved by the President on September 23, 1939, under the water conservation and utility provision of the Interior Department Appropriation Act of 1940, with an estimated cost of \$1,500,000. Of this amount, \$870,000 was to be nonreimbursable, \$220,000 to be reimbursable to the Department of Agriculture, and \$410,000 to the Bureau of Reclamation for project facilities. On March 14, 1945, the President approved the designation of the project as a war food project under the provisions of the Water Conservation and Utilization Act of October 14, 1940 (54 Stat. 1119), as amended on July 16, 1943 (57 Stat. 566). The estimated cost was increased by \$276,000 on August 7, 1942, by Presidential approval, \$138,000 to be returned to the Department of Agriculture and \$138,000 to the Bureau of Reclamation. Thus the total amount reimbursable to the Bureau of Reclamation for project works was \$548,000.

The project works, constructed to supply water

to approximately 14,800 acres, consist of a pumping plant with a capacity of 240 cubic feet per second to lift water 25 feet, 21.8 miles of canal, 38.8 miles of laterals, and approximately 32 miles of drains.

From September 15, 1944, to January 1, 1955, the project was operated by the Buford-Trenton Mutual Aid Corp. under an irrigation lease agreement entered into with the United States on September 14, 1944. Since January 1, 1955, the Buford-Trenton irrigation district has operated the project under a similar lease agreement.

Public Law 85-58 approved on June 21, 1957 (71 Stat. 184), provided for the purchase of lands in the Buford-Trenton irrigation district by the Corps of Engineers in lieu of protection of such lands in connection with the operation of the Garrison Dam and Reservoir on the Missouri River. The purchase price of these lands included the construction charge assignable to 2,987 acres of irrigable land amounting to \$110,613. The same act provided that the construction charge obligation assignable to the remaining lands in the district should be nonreimbursable. This construction charge obligation included an item for completion of minor construction now estimated to be \$152,612.

Based on the above legislation and the act of October 14, 1940 (54 Stat. 119), the reimbursability of the actual and estimated total cost of project facilities is as follows:

Item	Total cost	Nonreimbursable		Reimbursable
		October 1940	June 1957	
Regular features.....	\$941, 242	\$391, 442	\$439, 187	\$110, 613
Protective works.....	149, 019	149, 019	-----	-----
Estimated minor completion.....	152, 612	-----	152, 612	-----
Total.....	1, 242, 873	540, 461	591, 799	110, 613

BURNT RIVER PROJECT

HUNTINGTON, OREG.

Construction of Unity Dam and Reservoir, located on the Burnt River in Baker County, about 40 miles southwest of Baker, Oreg., was authorized by the Secretary of the Interior on September 25, 1935, upon his finding that the project was feasible. It was approved by the President under the Emergency Relief Act of 1935.

The Bureau of Reclamation built only the storage works for an irrigated area of approximately 15,000 acres which had for many years depended entirely on the natural flow of Burnt River for its water supply. Unity Dam and Reservoir, by providing for storage of floodwater and thus making possible the exchange of stored water for natural streamflow, not only assured an adequate supply for lands lying downstream from the reservoir but increased the supply for lands above the reservoir. Construction of the storage facilities began August 13, 1936, with storage water first available on January 1, 1939.

The total cost of constructing the storage system was \$601,026. The entire amount, except for \$1,291 in contributions, is repayable under the terms of the repayment contract with the irrigation district.

The dam and reservoir are operated by the Burnt River irrigation district.

Repayment contracts.—The Burnt River irrigation district (formerly Bridgeport irrigation district) contracted with the Bureau of Reclamation to build Unity Dam and Reservoir at a cost not to exceed \$550,000. Subsequently, due to a change in location of the dam which necessitated moving a bridge and section of the State highway, a supplemental contract was executed to increase the limitation on construction costs to not exceed \$600,000. Repayment is scheduled in 80 equal semiannual installments of \$7,496.42 commencing in 1940 with last payment due in 1979.

CONTRACTS

1935, December 24: Contract Ilr-821 with Burnt River irrigation district covers construction of Unity Dam and Reservoir at a cost not to exceed \$550,000, repayable in 80 semiannual installments.

1937, October 2: Contract Ilr-821 amended to provide for increasing limitation of obligation not to exceed \$600,000. Otherwise original contract remains in full force.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$599,735
Total matured charges.....	269,893
Total matured charges repaid.....	269,893
Total matured charges unpaid.....	0

RECLAMATION REPAYMENTS

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1936.....	\$550, 000							
1937.....	550, 000							
1938.....	600, 000							
1939.....	600, 000							
1940.....	600, 000	\$7, 500		\$7, 500	\$7, 500		\$7, 500	\$7, 500
1941.....	600, 000	15, 000		15, 000	15, 000		15, 000	22, 500
1942.....	600, 000	15, 000		15, 000	15, 000		15, 000	37, 500
1943.....	¹ 599, 735	14, 996		14, 996	14, 996		14, 996	52, 496
1944.....	599, 735	14, 993		14, 993	14, 993		14, 993	67, 489
1945.....	599, 735	14, 993		14, 993	14, 993		14, 993	82, 482
1946.....	599, 735	14, 993		14, 993	14, 993		14, 993	97, 475
1947.....	599, 735	14, 993		14, 993	14, 993		14, 993	112, 468
1948.....	599, 735	14, 993		14, 993	14, 993		14, 993	127, 461
1949.....	599, 735	14, 993		14, 993	14, 993		14, 993	142, 454
1950.....	599, 735	14, 993		14, 993	14, 993		14, 993	157, 447
1951.....	599, 735	22, 488		22, 488	22, 488		22, 488	179, 935
1952.....	599, 735	14, 993		14, 993	7, 497		7, 497	187, 432
1953.....	599, 735	14, 993		14, 993	22, 489		22, 489	209, 921
1954.....	599, 735	14, 993		14, 993	14, 993		14, 993	224, 914
1955.....	599, 735	14, 993		14, 993	14, 993		14, 993	239, 907
1956.....	599, 735	14, 993		14, 993	14, 993		14, 993	254, 900
1957.....	599, 735	14, 993		14, 993	14, 993		14, 993	269, 893
Total.....		269, 893		269, 893	269, 893		269, 893	
Collected.....				269, 893				
Uncollected.....				0				

¹ Obligation reduced to actual cost.

CACHUMA PROJECT

GOLETA, CALIF.

The Cachuma project, located in southern Santa Barbara County, Calif., was authorized on March 4, 1948, by the Secretary of the Interior pursuant to section 9 (a) of the Reclamation Project Act of 1939 (55 Stat. 1187). On March 24, 1948, the Secretary submitted his findings of feasibility to the Congress of the United States. The purpose of this project is to furnish new and supplemental domestic and irrigation water to the project area.

Cachuma Dam and Reservoir, with a capacity of 205,000 acre-feet, stores surplus floodwaters of the Santa Ynez River after prior rights have been satisfied in the Santa Ynez Valley. Water is diverted through the 6.4-mile Tecolote tunnel to the south coast area. From the tunnel outlet the water is carried through the 26-mile south coast conduit, supplying water to the Goleta, Montecito, Summerland, and Carpinteria County water districts, and to the city of Santa Barbara. The Montecito County water district had an existing irrigation distribution system adequate to handle project water. An extensive lateral distribution system has been constructed for irrigation use and for municipal and miscellaneous uses in Goleta, Summerland, and Carpinteria County water districts.

The official estimated cost of the project is \$43,360,456, including the cost of distribution systems, which aggregates \$4,560,168. The entire cost of the project is reimbursable.

Allocation of estimated project costs:

Repayment of reimbursable costs:

Irrigation.....	\$18, 430, 137
Distribution systems.....	4, 560, 168
Municipal and industrial water.....	20, 370, 151
Total.....	43, 360, 456

The distribution systems were constructed by the Bureau of Reclamation under separate repayment contracts with the individual county water districts involved. Project repayment will be accomplished under water service contracts with the Santa Barbara County Water Agency, delivering water to the individual districts. This agency entered into a master water service contract with the United States on September 12, 1949, and in turn has entered into subcontracts with the city of Santa Barbara and the Goleta, Carpinteria, Montecito, and Summerland County water districts and the Santa Ynez River water conservation district for the purpose of constructing works and supplying water.

The Bureau has transferred the operation of the project to the water users. Cachuma Dam, however, will be operated by the United States until 1962. Each individual district will be responsible for operation and maintenance of distribution systems built by the Government.

Repayment and water service contracts.—A 40-year contract under section 9 (e) and 9 (c) 2 of the Reclamation Project Act of 1939 (55 Stat. 1187) has been executed with the Santa Barbara County Water Agency which requires a gradually increasing minimum use of water by the member districts.

WATER SERVICE CONTRACT

Santa Barbara County Water Agency

Date of contract.....	Sept. 12, 1949.
Date of initial water delivery.....	Feb. 28, 1956.
Type of contract.....	9 (e).
Contract period.....	40 years.
Maximum water rates:	
Irrigation.....	\$25 per acre-foot.
Municipal.....	\$35 per acre-foot.

Minimum water deliveries:¹

After year:

5	8,700 acre-feet.
10	12,400 acre-feet.
15	16,000 acre-feet.
20	19,300 acre-feet.
25	22,900 acre-feet.
30	26,300 acre-feet.
35	29,200 acre-feet.

¹ Maximum quantity limited by supply. Includes 500 acre-feet for Santa Ynez River water conservation district at a rate of \$10 per acre-foot.

Contracts covering the costs of construction of the distribution systems under section 9 (d) of the Reclamation Project Act of 1939 (55 Stat. 1187) have been executed with the Goleta, Summerland, and Carpinteria County water districts. Construction of Tecolote tunnel made available seepage water which has been delivered under contract to the various water districts and the city of Santa Barbara, with receipts being used to defray current operation and maintenance costs. A total of

\$23,038 in excess of operating expense had been collected from this source through February 28, 1956, when the long-term contract went into effect.

CONTRACTS

1952, April 10: Contract I75r-4561 with Goleta County water district for \$3,600,000.

1953, April 17: Contract 14-06-200-550 with Carpinteria County water district for \$1,800,000.

1953, June 29: Contract 14-06-200-949 with Summerland County water district for \$400,000.

Payout schedule.—The cost of the water supply facilities is to be returned to the United States under a water sales contract with the Santa Barbara County Water Agency, which in turn sells the water to its member units. This 40-year contract will, to the extent necessary, be renewed by a subsequent contract with the same organization to insure the full return of the Government's investment.

CANADIAN RIVER PROJECT

SANFORD, TEX.

The Canadian River project was authorized by act of December 29, 1950 (64 Stat. 1124).

The project is located on the High Plains region of northwest Texas. Proposed project facilities include a multiple-purpose dam and reservoir on the Canadian River near Sanford, Tex., and a pipeline system with sufficient capacity to deliver about 140,000 acre-feet annually to the various cities participating in the project. The reservoir, in addition to the conservation of presently unused water to supplement existing ground water supplies for the various cities, will provide pro-

tection to lands and improvements from flood damage, improvement of fish and wildlife resources, recreational opportunities of substantial magnitude, and sediment control.

The total estimated cost of the project is \$95,500,000 (January 1957 prices). All further activities are being withheld pending advice from the Canadian River Municipal Water Authority concerning the final allocation of the available water supply between the project cities and the question of Federal financing for the project.

CARLSBAD PROJECT

CARLSBAD, N. MEX.

The Carlsbad project was originally constructed by a private development company, but was damaged extensively by floodwaters in October 1904. On November 28, 1905, the Secretary of the Interior authorized purchase and rehabilitation of the project.

The Bureau of Reclamation work in connection with the project included rehabilitation of the canal and distribution systems and the Avalon and McMillan Reservoirs in Eddy County to irrigate 25,055 acres of land. The Alamogordo Dam, approved by the President on November 6, 1935, was constructed on the Pecos River in De Baca County approximately 250 river miles upstream from Carlsbad, N. Mex., to augment storage facilities of the project. Public Law 465, 83d Congress (July 1, 1954), provided for enlarging the spillway of Alamogordo Dam on a nonreimbursable basis to accommodate floods of major proportions.

The United States operated the Carlsbad project until September 30, 1949, at which time the Carlsbad irrigation district assumed responsibility of the care, operation, and maintenance of the project, except for the Alamogordo Dam.

The total estimated cost of the project is \$5,372,487, including funded charges of \$93,396 and \$18,091 allowable additional costs under the current repayment contract.

Construction and rehabilitation of irrigation facilities.....	\$4, 271, 479
Construction—spillway enlargement.....	1, 007, 612
Total construction cost.....	5, 279, 091
Funded operation and maintenance.....	76, 541
Funded penalties.....	16, 855
Total estimated project cost.....	5, 372, 487

Allocation of costs:

Reimbursable costs:

Irrigation (repayment contract).....	\$3, 766, 761
Contributions.....	7, 980
Water and building rentals.....	33, 421
Subtotal.....	3, 808, 162

Nonreimbursable costs:

Flood control.....	1, 007, 612
CCC costs.....	181, 829
Chargeoff by Congress.....	374, 884
Subtotal.....	1, 564, 325

Total allocation..... 5, 372, 487

Repayment contracts.—The total actual cost of constructing and rehabilitating the original project was covered in the repayment contract. The total actual cost of constructing the Alamogordo Dam is covered in a supplemental repayment contract.

Repayment on the original contract in the amount of \$1,464,650 began in 1910. Final payment by the Carlsbad irrigation district, due in 1946 under the 1932 contract, has been made. The supplemental repayment contract was signed on January 16, 1936, in the amount of \$2,600,000, to be repaid in 40 equal annual installments beginning in 1946.

PUBLIC NOTICES AND CONTRACTS

- 1907, December 17: Public notice. Construction charge \$31 per acre, payable in 10 equal annual installments.
- 1912, February 17: Public notice. Construction charge increased to \$45 per acre, payable in 10 graduated annual installments.
- 1915, April 10: Public notice. Construction charge \$60 per acre, payable in 20 graduated annual installments.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1910		\$97, 467		\$97, 467	\$48, 549		\$48, 549	\$48, 549
1911		89, 646		89, 646	409	\$32, 333	32, 742	81, 291
1912		1, 008	¹ \$181, 031	¹ 180, 023	121	¹ 76, 945	¹ 76, 824	² 4, 467
1913		72, 331	¹ 4, 284	68, 047	8, 032	¹ 2, 059	5, 973	10, 440
1914		40, 027	¹ 1, 361	38, 666	17, 679	43, 849	61, 528	71, 968
1915	\$923, 763	585	13, 618	14, 203	585	43, 557	44, 142	³ 116, 110
1916	1, 047, 780	26, 146	¹ 650	25, 496	14, 208	8, 504	22, 712	138, 822
1917	1, 287, 175	22, 132	¹ 1, 577	20, 555	8, 899	12, 103	21, 002	159, 824
1918	1, 305, 700	19, 175	¹ 5, 024	14, 151	11, 555	9, 209	20, 764	180, 588
1919	1, 339, 290	33, 593	162	33, 755	19, 586	7, 783	27, 369	207, 957
1920	1, 410, 999	35, 189	319	35, 508	28, 686	14, 058	42, 744	250, 701
1921	1, 409, 501	53, 102	¹ 2, 577	50, 525	19, 114	2, 360	21, 474	272, 175
1922	1, 409, 501	55, 442	¹ 207	55, 235	18, 100	31, 357	49, 457	321, 632
1923	1, 423, 893	56, 715	¹ 2, 050	54, 665	26, 800	34, 036	60, 836	382, 468
1924	1, 423, 893	57, 674	¹ 135	57, 539	37, 865	31, 835	69, 700	452, 168
1925	1, 424, 313	58, 100		58, 100	44, 613	22, 747	67, 360	519, 528
1926	1, 425, 183	60, 783		60, 783	35, 244	13, 028	48, 272	567, 800
1927	1, 425, 183	62, 589		62, 589	28, 231	25, 925	54, 156	621, 956
1928	1, 425, 183	63, 583	50	63, 633	32, 729	34, 961	67, 690	689, 646
1929	1, 425, 183	65, 195		65, 195	31, 117	30, 688	61, 805	751, 451
1930	1, 425, 183	66, 640	¹ 2, 046	64, 594	31, 701	33, 728	65, 429	816, 880
1931	1, 425, 183	68, 051	1, 862	69, 913	25, 997	34, 636	60, 633	877, 513
1932	1, 425, 183	68, 041		68, 041	7, 636	1, 888	9, 524	887, 037
1933	1, 053, 197	⁴ 52	¹ 104, 966	¹ 104, 914	52	¹ 3, 917	¹ 3, 865	883, 172
1934	1, 113, 134	⁴ 1, 603		1, 603	1, 603	124	1, 727	884, 899
1935	1, 113, 132	⁴ 723		723	723	73	796	885, 695
1936	⁵ 3, 631, 180	⁴ 16		16	16		16	885, 711
1937	3, 641, 761	⁴ 1, 707		1, 707	1, 707		1, 707	887, 418
1938	3, 641, 761	15, 699		15, 699	4, 309		4, 309	891, 727
1939	3, 641, 761	14, 967		14, 967	8, 136	9, 861	17, 997	909, 724
1940	3, 641, 761	14, 474		14, 474	7, 263	8, 361	15, 624	925, 348
1941	3, 641, 761	29, 203		29, 203	15, 830	7, 210	23, 040	948, 388
1942	3, 641, 761	43, 728		43, 728	27, 882	13, 373	41, 255	989, 643
1943	3, 641, 761	43, 166		43, 166	28, 494	15, 846	44, 340	1, 033, 983
1944	3, 741, 761	42, 254		42, 254	28, 151	14, 672	42, 823	1, 076, 806
1945	3, 741, 761	31, 417		31, 417	22, 347	14, 103	36, 450	1, 113, 256
1946	3, 741, 761	43, 606		43, 606	9, 095	19, 664	28, 759	1, 142, 015
1947	3, 741, 761	65, 512	43, 158	108, 670	65, 512	44, 144	109, 656	1, 251, 671
1948	3, 741, 761	64, 558		64, 558	50, 662	22, 930	73, 592	1, 325, 263
1949	3, 741, 761	64, 116		64, 116	57, 350	13, 896	71, 246	1, 396, 509
1950	3, 741, 761	64, 117		64, 117	64, 117	6, 767	70, 884	1, 467, 393
1951	3, 741, 761	64, 116		64, 116	64, 116		64, 116	1, 531, 509
1952	3, 741, 761	64, 117		64, 117	64, 117		64, 117	1, 595, 626
1953	3, 741, 761	⁶ 63, 861		63, 861	63, 861		63, 861	1, 659, 487
1954	3, 741, 761	64, 070		64, 070	64, 070		64, 070	1, 723, 557
1955	⁷ 3, 766, 761	⁸ 32, 035		32, 035	32, 035		32, 035	1, 755, 592
1956	3, 766, 761	32, 535		32, 535	32, 535		32, 535	1, 788, 127
1957	3, 766, 761	65, 070		65, 070	65, 070		65, 070	1, 853, 197
Total		2, 099, 936	¹ 246, 739	1, 853, 197	1, 276, 509	576, 688	1, 853, 197	
Collected				1, 853, 197				
Uncollected				0				

¹ Decrease. Decreases are due to funding of charges and to cancellation of water-right applications.

² 1912. Accruals canceled under 1912 public notice.

³ 1915. Reclamation Extension Act, Aug. 13, 1914.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, \$38,930; 1933, \$42,226; 1934, \$40,840; 1935, \$40,451; 1936, \$20,061.

⁵ Increase in obligation due to adding \$2,500,000 for Alamogordo Reservoir etc., under 1936 contract.

⁶ Decrease to correct prior error in computations.

⁷ Rehabilitation contract executed for work on McMillan Dike.

⁸ Scheduled accruals for calendar year 1955 deferred and rescheduled to Aug. 1, 1986, and Feb. 1, 1987.

- 1916, September 2: Public notice. Supplemental construction. Rate \$10 per acre, payable in additional installments after 20-year repayment period.
- 1919, June 24: Public notice. Construction charge \$69 per acre, payable in 20 graduated annual installments.
- 1932, November 14: Contract Ilr-717 with Carlsbad irrigation district. District assumed obligations under individual water-right application. Unpaid construction and operation and maintenance charges for 1930 and 1931 to be paid in 5 and 8 years with 6 percent interest.
- 1936, January 16: Contract Ilr-717 with Carlsbad irrigation district. Covers construction of Alamogordo Reservoir and concrete lining of canals at estimated cost of \$2,500,000. Payable in semiannual installments in 40 years beginning in 1944.
- 1943, October 5: Contract with Carlsbad irrigation district. Maximum obligation under 1936 contract raised to \$2,600,000, and beginning of repayment deferred to year 1946.
- 1955, May 10: Contract 14-06-500-168 with Carlsbad irrigation district for \$25,000 for rehabilitation accomplished by emergency funds. Repayable in 25 years commencing in 1956.

The status of repayment on June 30, 1957, is as follows:

Total value of contracted repayment.....	\$3,766,761
Total matured charges.....	1,853,197
Total matured charges repaid.....	1,853,197
Total matured charges unpaid.....	0

*Operation and maintenance assessments history*¹

Fiscal year	Accruals	Collections
1909.....	\$7,626	-----
1910.....	27,828	\$32,924
1911.....	34,000	36,510
1912.....	6,232	6,252
1913.....	20,311	15,195
1914.....	19,760	20,919
1915.....	18,117	11,684
1916.....	18,915	15,991

See footnotes at end of table.

*Operation and maintenance assessments history*¹—
Continued

Fiscal year	Accruals	Collections
1917.....	\$32,021	\$22,558
1918.....	23,918	34,792
1919.....	30,912	30,156
1920.....	40,056	42,708
1921.....	56,424	21,377
1922.....	57,768	37,302
1923.....	53,848	69,142
1924.....	54,505	80,378
1925.....	51,227	64,476
1926.....	38,022	37,565
1927.....	40,556	36,037
1928.....	42,244	42,771
1929.....	39,233	37,836
1930.....	45,251	43,604
1931.....	56,508	43,862
1932.....	59,187	16,353
1933.....	² 86	73,861
1934.....	23,103	23,185
1935.....	35,919	35,967
1936.....	40,190	40,190
1937.....	24,606	24,606
1938.....	30,855	30,855
1939.....	56,769	56,769
1940.....	46,690	46,690
1941.....	41,212	41,212
1942.....	41,380	41,380
1943.....	53,507	53,507
1944.....	65,451	65,451
1945.....	58,899	58,899
1946.....	58,720	58,720
1947.....	79,875	79,875
1948.....	82,078	82,078
1949.....	81,934	81,934
1950.....	45,458	45,458
1951.....	13,373	13,373
1952.....	7,200	7,200
1953.....	10,038	10,038
1954.....	10,500	10,500
1955.....	8,622	8,622
1956.....	7,234	7,234
1957.....	8,547	8,547
Total.....	1,806,543	1,806,543

¹ This project is on a 40-year repayment basis.

² Decrease.

*Payout study**Payout study—Continued*

Fiscal year	Net revenues from irrigation water users	Irrigation plant in service at end of year	Interest-free balance to be repaid
1909			
1910	\$48,549		—\$48,549
1911	32,742		—81,291
1912	¹ 76,824		—4,467
1913	5,973		—10,440
1914	61,528		—71,968
1915	² 44,142	\$981,729	807,653
1916	22,712	1,063,268	908,958
1917	21,002	1,235,424	1,127,351
1918	20,764	1,379,537	1,125,112
1919	27,369	1,381,524	1,131,333
1920	42,744	1,389,245	1,160,298
1921	21,474	1,418,161	1,137,326
1922	49,457	1,418,747	1,087,869
1923	60,836	1,418,697	1,041,425
1924	69,700	1,418,697	971,725
1925	67,360	1,438,665	904,785
1926	48,272	1,458,996	857,383
1927	54,156	1,464,166	803,227
1928	67,690	1,464,523	735,537
1929	61,805	1,464,523	673,732
1930	65,429	1,464,650	608,303
1931	60,623	1,464,650	547,670
1932	9,524	1,464,650	538,146
1933	³ 3,865	1,464,650	170,025
1934	1,727	1,464,650	228,235
1935	796	1,464,650	227,437
1936	16	1,634,422	2,745,469
1937	1,707	3,057,195	2,754,343
1938	4,309	3,568,658	2,750,034
1939	17,997	3,664,159	2,732,037
1940	15,624	3,808,703	2,716,413
1941	23,040	3,880,685	2,693,373
1942	41,255	3,912,180	2,652,118
1943	44,340	3,942,835	2,607,778
1944	42,823	3,951,161	2,664,955
1945	36,450	3,984,916	2,628,505
1946	28,759	3,990,096	2,599,746
1947	109,656	3,992,735	2,490,090
1948	73,593	3,992,870	2,416,497
1949	71,247	4,007,008	2,345,250
1950	70,884	3,995,460	2,274,366
1951	64,116	4,024,274	2,210,250
1952	64,116	4,062,683	2,146,134

See footnotes at end of table.

Fiscal year	Net revenues from irrigation water users	Irrigation plant in service at end of year	Interest-free balance to be repaid
1953	\$63,860	\$4,243,875	\$2,082,274
1954	64,070	4,243,200	2,018,204
1955	⁴ 32,035	4,242,338	2,011,169
1956	32,535	4,238,151	1,978,634
1957	65,070	4,253,388	1,913,564
1958	65,070	4,253,388	1,848,494
1959	65,070	4,253,388	1,783,424
1960	65,070	4,253,388	1,718,354
1961	65,070	4,253,388	1,653,284
1962	65,070	4,253,388	1,588,214
1963	65,070	4,253,388	1,523,144
1964	65,070	⁵ 4,271,479	1,458,074
1965	65,070	4,271,479	1,393,004
1966	65,070	4,271,479	1,327,934
1967	65,070	4,271,479	1,262,864
1968	65,070	4,271,479	1,197,794
1969	65,070	4,271,479	1,132,724
1970	65,070	4,271,479	1,067,654
1971	65,070	4,271,479	1,002,584
1972	65,070	4,271,479	937,514
1973	65,070	4,271,479	872,444
1974	65,070	4,271,479	807,374
1975	65,070	4,271,479	742,304
1976	65,070	4,271,479	677,234
1977	65,070	4,271,479	612,164
1978	65,070	4,271,479	547,094
1979	65,070	4,271,479	482,024
1980	65,070	4,271,479	416,954
1981	64,569	4,271,479	352,385
1982	64,070	4,271,479	288,315
1983	64,070	4,271,479	224,245
1984	64,070	4,271,479	160,175
1985	64,070	4,271,479	96,105
1986	64,070	4,271,479	32,035
1987	32,035	4,271,479	

¹ Contra. Accruals canceled under 1912 public notice.² 1915. Reclamation Extension Act, Aug. 13, 1914.³ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933, Mar. 24, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1932, \$38,930; 1933, \$42,226; 1934, \$40,840; 1935, \$40,481; 1936, \$20,061.⁴ 1955 calendar year construction installment deferred to end of repayment period (contract 14-06-500-138). Also contract 14-06-500-168 executed for repayment of \$25,000 for repair on McMillan Dam and Reservoir.⁵ Includes increase of \$18,091 estimated cost of possible additions to Alamogordo Dam and Reservoir allowable under the \$2,600,000 repayment contract.

CENTRAL VALLEY PROJECT

SACRAMENTO, CALIF.

The finding of feasibility authorizing initial features of the Central Valley project under the provisions of the Reclamation Act of December 5, 1924, was approved on December 2, 1935, by the President of the United States. A congressional reauthorization of the project under Reclamation law was provided in section 2 of the Rivers and Harbors Act of August 26, 1937 (50 Stat. 859), and by the Rivers and Harbors Act of October 17, 1940 (54 Stat. 1198). By act of October 14, 1949 (63 Stat. 852), Congress reauthorized the project to include the operation of Folsom Reservoir and the construction of Folsom powerplant, Nimbus Dam and powerplant, and the Sly Park unit of the American River and Cosumnes River Basins. By act of September 26, 1950 (64 Stat. 1036), Congress reauthorized the project to include the Sacramento River Canals unit. Additional works for waterfowl management were authorized by the act of August 27, 1954 (68 Stat. 879). The reauthorization of August 12, 1955 (69 Stat. 719), added the Trinity River division.

The features of the Central Valley project are a part of a multipurpose basin development. Presently authorized features, when complete and in full operation, will provide sufficient water so that approximately 1,200,000 irrigable acres of land may be irrigated. Of these lands, 655,000 acres were irrigated in 1955. In addition, the project will provide water for municipal and industrial purposes and generate an average of 3,500,000,000 kilowatt-hours of hydroelectric energy annually, as well as provide flood control, navigation, salinity control, fish and wildlife and recreation benefits.

The initially authorized features consist of Shasta Dam, forming a reservoir of 4,500,000 acre-feet capacity; Shasta powerplant of 379,000-kilowatt nameplate capacity; Keswick Dam and

Reservoir with a capacity of 23,700 acre-feet; Keswick powerplant of 75,000-kilowatt nameplate capacity; the Delta Cross Channel with a design capacity of 3,500 second-feet; the Contra Costa Canal and pumping plants with 350 second-feet initial capacity; the Tracy pumping plant with 4,600 second-feet capacity; and the 117-mile Delta-Mendota Canal with 4,600 second-feet initial capacity. Also initially authorized are Friant Dam and Reservoir with 520,000 acre-feet capacity; the 36-mile Madera Canal of 1,000 second-feet initial capacity; the 153-mile Friant-Kern Canal of 4,500 second-feet initial capacity; irrigation water distribution systems for the delivery of project water; and the electrical transmission system consisting of three 230-kilovolt lines between Shasta and Keswick and the Delta, together with essential substations, switchyards, and lower voltage transmission lines to insure dependable service to project pumping plants and other points of commercial sale. The reauthorization of October 14, 1949, added Folsom Dam and Reservoir, with 1,000,000 acre-feet capacity; Folsom powerplant of 162,000-kilowatt nameplate capacity; and the Nimbus Dam and the Nimbus powerplant of 13,500-kilowatt nameplate capacity; transmission lines to connect with the initial Central Valley project transmission system; and the Sly Park Dam and Reservoir with 41,000 acre-feet capacity on Sly Park Creek, a tributary of the Cosumnes River, a diversion dam on Camp Creek, a tunnel to carry water to Sly Park Reservoir, and a conduit to convey water to the El Dorado irrigation district. The reauthorization of September 26, 1950, added the Sacramento Canals unit, including Corning Canal, the Tehama-Colusa Canal, and the Chico Canal, with diversion works, pumping plants, and distribution systems. Additional works for waterfowl management were

authorized by the act of August 27, 1954. The reauthorization of August 12, 1955, added the Trinity River division, including Trinity Dam, Lewiston Diversion Dam, and appurtenant tunnels to bring Trinity River water into the Sacramento River. Studies are being conducted to determine whether the power facilities will be built by the United States or by private interests.

All completed project features are now operated by the United States except the Sly Park unit which has been transferred to the water users for care, operation, and maintenance. Present repayment contracts provide that all distribution systems will be transferred to water users for care, operation, and maintenance upon completion. By June 30, 1957, five distribution systems had been so transferred.

The allocation and repayment of costs:

Total estimated project costs.....	\$761, 627, 085
Included in repayment analysis:	
Folsom facilities ¹	61, 870, 300
Subtotal.....	823, 497, 385
Excluded from repayment analysis:	
Distribution systems.....	—65, 998, 917
Rewind Shasta generator unit #4.....	—166, 776
Friant fish hatchery pipeline.....	—66, 692
Net total allocated.....	757, 265, 000
Allocation of costs:	
Reimbursable:	
Irrigation.....	384, 605, 000
Power (commercial).....	292, 037, 000
Fish and wildlife.....	2, 737, 000
Municipal water supply.....	17, 419, 000
Subtotal.....	696, 798, 000
Nonreimbursable:	
Navigation.....	12, 940, 000
Flood control.....	35, 684, 000
Recreation.....	215, 000
Fish and wildlife.....	11, 628, 000
Subtotal.....	60, 467, 000
Total allocated cost.....	757, 265, 000

Repayment of reimbursable costs:

From power revenues:	
For electric plant investment....	\$292, 037, 000
For irrigation plant investment....	105, 287, 300
For fish and wildlife investment....	240, 700
Subtotal.....	397, 565, 000
From municipal water revenues:	
For municipal plant investment....	17, 419, 000
For irrigation plant investment....	157, 400
Subtotal.....	17, 576, 400
From irrigation water revenues:	
For irrigation plant investment....	279, 160, 300
From fish and wildlife revenues:	
For fish and wildlife plant investment.....	2, 496, 300
Subtotal.....	696, 798, 000
Repayment of water distribution system:	
From irrigation water users.....	65, 998, 917
Total.....	762, 796, 917

¹ Constructed by Corps of Engineers.

The cost of the water distribution systems will be repaid by contracts authorized by section 9 (d) of the 1939 act. These systems will be repaid in 40 years after an appropriate development period.

Repayment arrangements.—The costs of the Central Valley project will be repaid by the beneficiaries of the three principal reimbursable project functions: irrigation, municipal and industrial water use, and commercial power. Water service contracts authorized by section 9 (e) and 9 (c) (2) of the 1939 Reclamation Project Act (53 Stat. 1187) have been executed with districts for service from the principal project features. Power service is being provided to preference customers and one private utility. It is contemplated that the net revenues from commercial power and municipal and industrial water in excess of that required for repayment of the allocation of these functions will be applied to assist in the repayment of project costs allocated to irrigation to the extent that revenues are not available from irrigation during the repayment period.

RECLAMATION REPAYMENTS

Irrigation water service contracts

District	Date of contract	Initial delivery date	Type of contract	Contract period (years)	Maximum water rates		Minimum water deliveries (acre-feet) ¹		Maximum water deliveries (acre-feet)	
					Class 1	Class 2	Class 1	Class 2	Class 1	Class 2
Contra Costa Canal:										
Contra Costa County water district	Sept. 18, 1951	Jan. 1, 1952	WS & D	40	\$3.50		10,000		33,000	
Delta-Mendota Canal, Mendota Pool:										
Davis water district	Oct. 23, 1953	Mar. 1, 1954	WS	40	3.50		1,000		6,500	
Del Puerto water district	June 10, 1953	do.	WS	40	3.50		2,500		10,000	
Foothill water district	May 31, 1953	Mar. 1, 1956	WS	40	3.50		1,500		3,650	
Hospital water district	June 10, 1953	Mar. 1, 1954	WS	40	3.50		5,000		19,200	
Kern Canon water district	do.	do.	WS	40	3.50		2,000		7,700	
Panoche water district	Aug. 16, 1955	Jan. 1, 1956	WS	40	3.50		40,000		94,000	
Plain View water district	May 22, 1953	Mar. 1, 1954	WS & D	40	3.50		2,500		17,250	
Salado water district	June 10, 1953	do.	WS	40	3.50		1,500		6,000	
Sunflower water district	Nov. 12, 1953	do.	WS	40	3.50		2,000		7,420	
West Stanislaus irrigation district	July 14, 1953	do.	WS	40	3.50		6,000		20,000	
Friant-Kern Canal:										
Delano-Earlimart irrigation district	Aug. 11, 1951 ²	Mar. 1, 1952	WS & D	40	3.50	\$1.50	108,800	74,500	108,800	74,500
Exeter irrigation district	Nov. 8, 1950 ²	Mar. 23, 1951	WS & D	40	3.50	1.50	11,500	19,000	11,500	19,000
Ivanhoe irrigation district	Sept. 23, 1949 ²	Mar. 20, 1950	WS & D	40	3.50	1.50	7,700		7,700	
Lindmore irrigation district	Feb. 28, 1949 ²	May 19, 1950	WS & D	40	3.50	1.50	33,000	22,000	33,000	22,000
Lindsay-Strathmore irrigation district	Aug. 5, 1948 ²	July 9, 1949	WS	40	3.50	1.50	18,000		30,000	
Lower Tule River irrigation district	May 1, 1951 ²	Mar. 1, 1952	WS	40	3.50	1.50	40,000	100,000	40,000	274,000
Orange Cove irrigation district	Jan. 20, 1949 ²	July 9, 1949	WS	40	3.50	1.50	10,000		39,200	
Porterville irrigation district	Jan. 28, 1952	Mar. 1, 1952	WS	40	3.50	1.50	16,000	15,000	16,000	30,000
Saucelito irrigation district	Feb. 13, 1951 ²	Mar. 24, 1951	WS & D	40	3.50	1.50	15,300	32,800	15,300	32,800
Shafter-Wasco irrigation district	Feb. 11, 1955	Mar. 1, 1955	WS & D	40	3.50	1.50	20,300	16,000	50,000	39,600
So. San Joaquin municipal utility district	Oct. 18, 1945 ²	Mar. 31, 1951	WS	40	3.50	1.50	67,000	50,000	97,000	50,000
Stone Corral irrigation district	Dec. 13, 1950	Mar. 27, 1951	WS & D	40	3.50	1.50	3,000		7,700	
Terra Bella irrigation district	Sept. 12, 1950 ²	Apr. 13, 1951	WS	40	3.50	1.50	10,000		29,000	
Tulare irrigation district	Oct. 18, 1950	Mar. 19, 1951	WS	40	3.50	1.50	30,000	141,000	30,000	141,000
Madera Canal:										
Chowchilla water district	July 5, 1950 ²	Mar. 22, 1951	WS	40	3.50	1.50	30,000	160,000	55,000	160,000
Madera irrigation district	May 14, 1951 ²	Mar. 1, 1952	WS & D	40	3.50	1.50	85,000	186,000	85,000	186,000
Sly Park unit:										
El Dorado irrigation district	June 15, 1953	June 1, 1955	WS	40	³ 2.50		4,375		17,500	

Types of contract:

WS—Water service.

WS & D—Water service and distribution system.

¹ Minimum contract quantities in effect after the first 5 years of water service.² Date of execution of original water service contract (or water service and distribution system, if combined); amendments have followed; water quantities are from latest amendment.³ Rate of \$1 per acre-foot for fiscal year 1955 to 1957, inclusive; \$2 per acre-foot for fiscal year 1958 to 1960, inclusive; \$2.50 per acre-foot thereafter. The district operates and maintains the Unit.

Distribution system repayment contracts

District	Date of contract ¹	Contract number	Maximum contract limit ¹	Repayment period (years)	Development period	Initial construction payment
Contra Costa Canal:						
Contra Costa County water district.....	² Sept. 18, 1951	175r-3401-----	\$1, 288, 000	40	³ 5	³ Jan. 1, 1959
Delta-Mendota Canal:						
Plain View irrigation district.....	May 22, 1953	14-06-200-785--	838, 000	40	10	Aug. 1, 1965
Friant-Kern Canal:						
Delano-Earlimart irrigation district.....	Aug. 11, 1951	175r-3327-----	14, 509, 000	40	2	Aug. 1, 1961
Exeter irrigation district.....	Nov. 8, 1950	175r-2508-----	4, 373, 000	40	2	Do.
Ivanhoe irrigation district.....	Sept. 23, 1949	175r-1809-----	2, 276, 000	40	2	Aug. 1, 1958
Lindmore irrigation district.....	Feb. 28, 1949	175r-1635-----	5, 000, 000	40	2	Do.
Lindsay-Strathmore irrigation district.....	Sept. 12, 1950	175r-2447-----	2, 048, 038	40	1	Mar. 1, 1955
Saucelito irrigation district ⁴	Feb. 13, 1951	175r-2604-----	2, 644, 500	40	2	Aug. 1, 1965
Shafter-Wasco irrigation district.....	Feb. 11, 1955	14-06-200-4032--	10, 250, 000	40	2	Aug. 1, 1964
Southern San Joaquin municipal utility district.....	May 14, 1948	175r-1434-----	9, 959, 484	40	3	Aug. 1, 1960
Stone Corral irrigation district.....	Dec. 13, 1950	175r-2555-----	777, 000	40	5	Aug. 1, 1965
Madera Canal:						
Madera irrigation district.....	May 14, 1951	175r-2891-----	8, 320, 000	40	2	July 1, 1958

¹ Date of original distribution system contract; some contracts have been amended subsequently. Maximum contract limit is that of the latest amendment in effect.

² Date of original distribution system repayment contract; subsequent amendments have been executed. "Maximum contract limit" is that of most recent contract amendment, and is for total of both agricultural and municipal.

³ Distribution system relates to both agricultural and municipal and miscellaneous use; the development period applies only to the repayment of the agricultural portion, for which the first payment is due Jan. 1, 1964.

⁴ Final decision not yet made by District, as to type, extent, and time of construction of distribution system; initial construction payment is present estimate.

Municipal and miscellaneous water-service contracts

District	Date of contract	Type of contract	Contract period	Initial delivery date	Maximum water rate	Quantities of water	
						Minimum (acre-foot)	Maximum (acre-foot)
Contra Costa Canal:							
Contra Costa County water district.....	Sept. 18, 1951	WS & D	40	Jan. 1, 1952	\$10. 00	25, 000	53, 000
Shasta Dam:							
Buckeye County water district.....	Dec. 18, 1951	WS	40	July 1, 1952	20. 00	45	175
Shasta Dam area public utility district.....	Aug. 12, 1948	WS	40	Oct. 15, 1948	20. 00	375	¹ 1, 000
Summit City public utility district.....	Oct. 22, 1948	WS	40	Dec. 15, 1948	20. 00	60	¹ 200
Sly Park unit:							
El Dorado irrigation district.....	June 15, 1953	WS	40	June 21, 1955	² 17. 50	625	2, 500
Friant-Kern Canal:							
City of Orange Cove.....	Feb. 28, 1956	WS	40	³ Mar. 1, 1956	10. 00	0	1, 400
Pacific Gas & Electric Co.....	July 27, 1953	WS	40	Aug. 23, 1954	3. 50	0	⁴ 3, 000
Fresno County water district No. 18.....	Aug. 17, 1956	WS	40	Oct. 23, 1956	20. 00	0	150
Folsom service area:							
Walter G. Ehrman.....	Feb. 28, 1956	WS	40	Feb. 28, 1956	(⁵)	(⁵)	(⁵)
Coffing and Stoltz.....	Jan. 2, 1957	WS	40	-----	(⁵)	(⁵)	(⁵)

Types of contract:

WS—Water service.

WS & D—Water service and distribution system.

¹ Theoretical maximum, computed from maximum contract rate of delivery; amended contract contains no maximum acre-foot figure.

² Rate of \$10 per acre-foot for fiscal year 1955 to 1957; \$15 per acre-foot for

fiscal year 1958 to 1960; and \$17.50 per acre-foot thereafter. In addition, the district operates and maintains the unit.

³ City started operating under long-term contract Mar. 1, 1956. Contract does not provide for initial delivery date.

⁴ Canal operational spill, no fixed entitlement.

⁵ Payment is \$300 per year minimum, or \$40 per residential unit, whichever is higher, no maximum or minimum quantities as such, flat-rate basis.

RECLAMATION REPAYMENTS

*Payout study*¹

[Thousands of dollars]

Year of study (fiscal)	Power						Municipal water service					
	Net operating revenue	Components of net power revenues		Investment repayment from power revenues		Earned surplus	Net operating revenue	Components of net municipal revenues		Investment repayment from municipal revenues		
				Interest bearing						Interest free	Interest bearing	
		Interest on in- vestment	Excess over interest	Electric plant in service	Balance to be repaid			Revenues credited to fish and wild- life and irrigation repay- ment	Interest on in- vestment	Excess over interest	Municipal plant in service	Balance to be repaid
1941												
1942												
1943												
1944				2,215.8	2,215.8							
1945				13,713.5	13,713.5							
1946	1,560.4	411.4	1,149.0	15,668.3	14,519.3							
1947	3,304.4	435.6	2,868.8	15,984.8	11,966.9							
1948	2,989.7	359.0	2,630.7	16,058.2	9,409.7							
1949	2,603.1	282.3	2,320.8	24,580.7	15,611.4							
1950	6,447.2	534.8	5,912.4	34,650.8	19,769.0					5,569.3	5,569.3	
1951	8,588.4	593.1	7,995.3	52,749.3	29,872.3		38.5	139.2	-100.7	6,292.7	6,393.4	
1952	9,154.1	896.2	8,257.9	61,687.0	30,552.1		29.5	159.8	-130.3	6,734.7	6,965.7	
1953	8,232.7	916.5	7,316.2	78,491.5	40,040.4		36.0	174.1	-138.0	7,178.2	7,547.2	
1954	6,999.1	1,201.2	5,797.9	80,812.7	40,563.7		26.5	188.7	-162.2	7,579.1	8,110.3	
1955	7,775.1	1,096.9	6,678.2	85,068.7	34,141.5		80.3	202.8	-122.5	6,356.8	7,010.5	
1956	5,428.2	1,024.2	4,403.9	99,519.4	44,188.2		304.5	175.3	129.1	9,527.0	10,051.6	
	6,947.3	1,325.7	5,621.7	134,283.0	73,330.1		171.2	251.3	-80.1	8,927.0	9,531.7	
							-132.8	238.3	-371.1	16,819.0	17,794.8	
Total through 1956	70,029.8	9,076.9	60,952.9	134,283.0	73,330.1		553.7	1,529.5	-975.8	16,819.0	17,794.8	
1957	8,574.1	2,199.9	6,374.2	136,179.0	68,852.0		139.8	444.9	-305.1	17,398.0	18,678.9	
1958	8,167.2	2,065.6	6,101.7	136,196.0	62,767.3		182.9	467.0	-284.1	17,402.0	18,967.0	
1959	7,884.7	1,883.0	6,001.6	136,268.0	56,837.6		224.0	474.2	-250.2	17,411.0	19,226.2	
1960	6,978.0	1,705.1	5,272.9	138,925.0	54,221.7		261.9	480.7	-218.8	17,418.0	19,452.0	
1961	6,977.0	1,626.7	5,350.3	138,929.0	48,875.4		320.0	486.3	-166.3	17,419.0	19,619.3	
1962	6,982.0	1,466.3	5,515.7	289,138.0	193,568.7		370.9	490.5	-119.6	17,419.0	19,738.9	
1963	7,284.0	5,807.1	1,476.9	292,037.0	194,990.7		421.1	493.5	-72.4	17,419.0	19,811.3	
1964	7,146.0	5,849.7	1,296.3	292,037.0	193,694.4		454.0	495.3	-41.3	17,419.0	19,852.6	
1965	7,152.0	5,810.8	1,341.2	292,037.0	192,353.3		473.3	496.3	-23.0	17,419.0	19,875.6	
1966	10,497.0	5,770.6	4,726.4	292,037.0	187,626.9		493.6	496.9	-3.3	17,419.0	19,878.9	
1967	10,445.0	5,628.8	4,816.2	292,037.0	182,810.7		521.4	497.0	24.4	17,419.0	19,854.5	
1968	10,447.0	5,484.3	4,962.7	292,037.0	177,848.0		540.0	496.4	43.6	17,419.0	19,810.9	
1969	10,454.0	5,335.4	5,118.6	292,037.0	172,729.4		565.7	495.3	70.4	17,419.0	19,740.5	
1970	10,457.0	5,181.9	5,275.1	292,037.0	167,454.3		591.9	493.5	98.4	17,419.0	19,642.1	
1971	10,460.0	5,023.6	5,436.4	292,037.0	162,018.0		604.7	491.1	113.6	17,419.0	19,528.5	
1972	10,461.0	4,860.5	5,600.5	292,037.0	156,417.5		627.5	488.2	139.3	17,419.0	19,389.2	
1973	10,463.0	4,692.5	5,770.5	292,037.0	150,647.0		638.2	484.7	153.5	17,419.0	19,235.7	
1974	10,467.0	4,519.4	5,947.6	292,037.0	144,699.4		659.4	480.9	178.5	17,419.0	19,057.2	
1975	10,471.0	4,341.0	6,130.0	292,037.0	138,569.4		669.8	476.4	193.4	17,419.0	18,863.8	
1976	10,472.0	4,157.1	6,314.9	292,037.0	132,254.5		679.4	471.6	207.8	17,419.0	18,656.0	
1977	10,475.0	3,967.6	6,507.4	292,037.0	125,747.1		698.2	466.4	231.8	17,419.0	18,424.2	
1978	10,477.0	3,772.4	6,704.6	292,037.0	119,042.5		706.2	460.6	245.6	17,419.0	18,178.6	
1979	10,481.0	3,571.3	6,909.7	292,037.0	112,132.8		723.4	454.5	268.9	17,419.0	17,909.7	
1980	10,485.0	3,364.0	7,121.0	292,037.0	105,011.8		732.6	447.7	284.9	17,419.0	17,624.8	
1981	10,489.0	3,150.4	7,338.6	292,037.0	97,673.2		749.0	440.6	308.4	17,419.0	17,316.4	
1982	10,493.0	2,930.2	7,562.8	292,037.0	90,110.4		753.8	432.9	320.9	17,419.0	16,995.5	
1983	10,497.0	2,703.3	7,793.7	292,037.0	82,316.7		768.6	424.9	343.7	17,419.0	16,651.8	
1984	10,501.0	2,469.5	8,031.5	292,037.0	74,285.2		772.6	416.3	356.3	17,419.0	16,295.5	
1985	10,505.0	2,228.6	8,276.4	292,037.0	66,008.7		775.8	407.4	368.4	17,419.0	15,927.1	
1986	10,507.0	1,980.3	8,526.7	292,037.0	57,482.0		790.2	398.2	392.0	17,419.0	15,535.1	
1987	10,507.0	1,724.5	8,782.5	292,037.0	48,699.4		791.8	388.4	403.4	17,419.0	15,131.7	
1988	10,507.0	1,461.0	9,046.0	292,037.0	39,653.4		792.6	378.3	414.3	17,419.0	14,717.4	
1989	10,505.0	1,189.6	9,315.4	292,037.0	30,338.0		803.4	367.9	435.5	17,419.0	14,281.9	
1990	10,504.0	910.1	9,593.9	292,037.0	20,744.2		803.4	357.0	446.4	17,419.0	13,835.5	
1991	10,502.0	622.3	9,879.7	292,037.0	10,864.5		803.4	345.9	457.5	17,419.0	13,378.0	
1992	10,500.0	325.9	10,174.0	292,037.0	690.4		803.4	334.4	469.0	17,419.0	12,909.0	
1993	10,498.0	20.7	10,477.3	292,037.0	0	9,786.9	803.4	322.7	480.7	17,419.0	12,428.3	
1994	10,496.0	0	10,496.0	292,037.0	0		803.4	310.7	492.7	17,419.0	11,935.6	
1995	10,494.0		10,494.0	292,037.0	0		803.4	298.4	505.0	17,419.0	11,430.6	
1996	10,494.0		10,494.0	292,037.0	0		803.4	285.8	517.6	17,419.0	10,913.0	
1997	10,492.0		10,492.0	292,037.0	0		803.4	272.8	530.6	17,419.0	10,382.4	
1998	10,490.0		10,490.0	292,037.0	0		803.4	259.6	543.8	17,419.0	9,838.6	
1999	10,488.0		10,488.0	292,037.0	0		803.4	246.0	557.4	17,419.0	9,281.2	
2000	10,487.0		10,487.0	292,037.0	0		803.4	232.0	571.4	17,419.0	8,709.8	
2001	10,485.0		10,485.0	292,037.0	0		803.4	217.7	585.7	17,419.0	8,124.1	
2002	10,485.0		10,485.0	292,037.0	0		803.4	203.1	600.3	17,419.0	7,523.8	
2003	10,483.0		10,483.0	292,037.0	0		803.4	188.1	615.3	17,419.0	6,908.5	
2004	10,481.0		10,481.0	292,037.0	0	1,330.1	803.4	172.7	630.7	17,419.0	6,277.8	
2005	10,479.0		10,479.0	292,037.0	0		803.4	156.9	646.5	17,419.0	5,631.3	
2006	10,477.0		10,477.0	292,037.0	0		803.4	140.8	662.6	17,419.0	4,968.7	
2007	10,475.0		10,475.0	292,037.0	0		803.4	124.2	679.2	17,419.0	4,289.5	
2008	10,475.0		10,475.0	292,037.0	0		803.4	107.2	696.2	17,419.0	3,593.3	
2009	10,471.0		10,471.0	292,037.0	0		803.4	89.8	713.6	17,419.0	2,879.7	
2010	10,467.0		10,467.0	292,037.0	0		803.4	72.0	731.4	17,419.0	2,148.3	
2011	10,464.0		10,464.0	292,037.0	0		803.4	53.7	749.7	17,419.0	1,398.6	
2012	10,460.0		10,460.0	292,037.0	0		803.4	35.0	768.4	17,419.0	630.2	
2013	10,456.0		10,456.0	292,037.0	0		803.4	15.8	787.6	17,419.0	0	157.4
Total	640,300.8	128,877.9	511,422.9	292,037.0	0	105,528.0	113,857.9	39,133.0	21,556.6	17,576.4	17,419.0	157.4

See footnotes at end of table.

[Thousands of dollars]

¹ Each figure has been individually rounded from figures computed to the last digit; hence, the sum of the parts may differ slightly from the totals shown.
² Includes aid from power and municipal water service as well as irrigation net operating revenue.
³ Include aid from power as well as fish and wildlife net operating revenue.

RECLAMATION REPAYMENTS

Payout study--Continued

SUMMARY

Storage, conveyance, and power facilities:	<i>Cost allocation</i>	<i>Probable re payment</i>
Reimbursable:		
Irrigation.....	\$384,605,000	\$279,160,300
Fish and wildlife.....	2,737,000	2,496,300
Municipal and industrial water service.....	17,419,000	^a 17,576,400
Power.....	292,037,000	^b 397,565,000
Subtotal.....	696,798,000	696,798,000
Nonreimbursable:		
Flood control, navigation.....	48,624,000	
Fish and wildlife.....	11,628,000	
Recreation.....	215,000	
Total.....	757,265,000	696,798,000
Interest on investment.....		^c 150,434,500
Earned surplus.....		113,857,900

^aIncludes \$157,400 aid toward irrigation repayment.

^bIncludes \$105,287,300 aid to irrigation and \$240,700 aid to fish and wildlife repayment.

^cIncludes \$128,877,900 on power investment and \$21,556,600 on municipal and industrial investment.

CHIEF JOSEPH DAM PROJECT

BRIDGEPORT, WASH.

Chief Joseph Dam, a key structure in the comprehensive irrigation development of the Columbia River Basin, was constructed by the Corps of Engineers, Department of the Army, on the Columbia River. Irrigation developments are to be constructed under the act of July 17, 1952 (66 Stat. 753), which provides a basis for authorization of irrigation works in connection with Chief Joseph Dam and for financial assistance to such developments from power revenues.

Facilities required to deliver water from the reservoir will be constructed for each division developed. The first irrigation development, Foster Creek Division, has been authorized and funds appropriated for its construction. Investigations are planned for three additional divisions, (1) Greater Wenatchee, (2) Okanogan-Similkameen, and (3) Methow, Chelan, Entiat, Nespelern and minor tributaries, development of which would provide a full water supply to 31,000 acres and a supplemental water supply to 23,000 acres.

FOSTER CREEK DIVISION

The Foster Creek division, which comprises Bridgeport Bar, Brewster Flat, and Bluebottle Flat units, was authorized by Congress on July 27, 1954 (68 Stat. 568), as Public Law 540, 83d Congress, 2d session. Congress on July 17, 1952 (66 Stat. 753), passed Public Law 577, 82d Congress, 2d session, providing the basis for authorizing irrigation works in connection with Chief Joseph Dam and for financial assistance to these developments from power development.

The Foster Creek division is located in Okanogan County adjacent to the Columbia River in north-eastern Washington midway between the Wenatchee and Okanogan fruit belts. The plan of development is to lift water from the Columbia River and supply it under pressure to sprinkler

irrigate 3,961 acres. The principal project features consist of pumping plants on the Columbia River, outlet works from Chief Joseph Dam, a relift pumping plant, steel-tank equalizing reservoirs, and a closed pipe distribution system.

The total estimated cost of the irrigation facilities of the Foster Creek division, including allocated costs from Chief Joseph Dam, is \$4,047,900. Following is a tabulation of the cost and repayment allocation:

Total estimated cost—on site.....	\$3, 915, 000
Allocated costs for outlet works, reservoir capacity, and substation, Chief Joseph Dam.....	132, 900
Total.....	4, 047, 900
Reimbursable costs allocated to irrigation:	
Repayment by irrigation water users....	\$1, 944, 300
Repayment by power revenues—on site costs.....	2, 086, 100
Total.....	4, 030, 400
Nonreimbursable costs—fish and wildlife....	17, 500
Total.....	4, 047, 900

Repayment contracts.—On June 6, 1956, the Brewster Flat irrigation district signed a contract to pay to the United States as its construction charge obligation \$1,276,800.

The repayment contract with the Bridgeport Bar irrigation district, dated May 21, 1956, provides for repayment to the United States its construction charge obligation of \$96,400. This obligation includes \$2,400 as the district's share of the cost of the Chief Joseph substation.

A contract for development of the townsite area, which is a part of the Bridgeport Bar unit, is under negotiation. A contract covering development of the Bluebottle Flat unit has not been negotiated.

PUBLIC NOTICES AND CONTRACTS

- 1956, June 6: Contract with Brewster Flat irrigation district to repay an amount not to exceed \$1,276,800 in 50 equal annual installments. If the district board of directors so elects, the amount of the basic annual installments may be adjusted in accordance with a formula, mutually acceptable to the Secretary and the District board of directors, that will reflect economic conditions pertinent to the water users payment capacity. A 10-year development period has been established for all lands. Annual construction installments shall be due on or before March 15 of the year following the last year of the development period.
- 1956, May 21: Contract with the Bridgeport Bar irrigation district to repay an amount not to exceed \$96,400 in 50 equal annual installments. Annual install-

ments shall become due the first calendar year following a 10-year development period and shall be payable on or before March 15 of the following year. If the board of directors of the district so elect, the basic annual installments may be varied in accordance with a formula, mutually acceptable to the Secretary and the district, that will reflect the project's economic conditions. The repayment of the district's obligation shall also be distributed among the various land classes to reflect their relative productivity.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$1, 373, 200
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	.0

COLLBRAN PROJECT

COLLBRAN, COLO.

The construction of the Collbran project in west-central Colorado was authorized by Congress July 3, 1952 (66 Stat. 325).

The project is designed to furnish an adequate irrigation water supply to approximately 20,600 acres of irrigable land and to have an installed capacity for the generation of 13,000 kilowatts of hydroelectric power. Of the total irrigable acreage, 2,300 acres would receive a full water supply and 18,300 acres would receive a supplemental water supply. Project features will include Vega Dam and Reservoir, South Side Canal, Bonham-Cottonwood pipeline, and the Upper and Lower Molina powerplants.

The total cost of constructing the project features is estimated to be \$14,190,000.

The authorizing legislation provides that net power revenues shall be applied to amortization of the costs allocated to irrigation which are beyond the ability of the irrigation water users to repay within a 50-year period. A contract will be negotiated with the Collbran conservancy district for the repayment of \$1,070,000, the portion of the irrigation allocation which is within the ability of the irrigation water users to repay.

The proposed allocation and repayment of costs:

Total estimated project cost..... \$14, 190, 000

Reimbursable costs:

Irrigation.....	4, 162, 000
Power.....	9, 791, 000

Subtotal.....	13, 953, 000
---------------	--------------

Nonreimbursable costs:

Fish and wildlife.....	100, 000
Forest Service.....	33, 000
Colorado River development funds....	104, 000

Subtotal.....	237, 000
---------------	----------

Repayment of reimbursable costs for irrigation investment:

From irrigation water users.....	1, 070, 000
From net power revenues.....	3, 092, 000

Subtotal.....	4, 162, 000
---------------	-------------

For powerplant investment: From power revenues.....

	9, 791, 000
--	-------------

Total reimbursable costs.....	13, 953, 000
-------------------------------	--------------

COLORADO-BIG THOMPSON PROJECT

DENVER, COLO.

The Colorado-Big Thompson project in north-central Colorado, located on both sides of the Continental Divide, was found feasible by the Secretary and was approved by the President on December 21, 1937. The first appropriation of funds was made in the Interior Department Appropriation Act (50 Stat. 595) passed by Congress August 9, 1937, to initiate work on the project in accordance with the plan outlined in Senate Document No. 80, 75th Congress, 1st session.

The primary purpose of the Colorado-Big Thompson project is to supplement the water supply for an area currently estimated at 720,000 acres of irrigated land by diverting surplus water from the Colorado River on the western slope of the Continental Divide to the eastern slope through the Alva B. Adams tunnel. The power potential of the diverted water is utilized as it drops approximately 2,800 feet down the eastern slope of the Rocky Mountains between the Adams tunnel and the foothills storage system. Power is also produced from the waters stored for replacement purposes in Green Mountain Reservoir on the western slope.

The principal features of the project are as follows (the number of dikes is indicated in parentheses):

RESERVOIRS AND DAMS

Green Mountain Reservoir and Dam.
Lake Granby Dam and dikes (4).
Willow Creek Reservoir and Dam.
Shadow Mountain Lake and Dam and dike.
East Portal Reservoir and Dam.
Marys Lake and dikes (2).
Lake Estes and Olympus Dam.
Rattlesnake Reservoir and Dam.
Flatiron Reservoir and Dam.
Carter Lake and Dams (3)
Horsetooth Reservoir, dams (4), and dike.

CANALS, CONDUITS, AND TUNNELS

Elliott Creek feeder canal.
Colorado River improvements (for irrigation).

Willow Creek feeder canal.
Granby pump canal.
Alva B. Adams tunnel.
Aspen Creek siphon.
Rams Horn tunnel.
Prospect Mountain conduit (pressure).
Prospect Mountain tunnel (pressure).
Olympus siphon
Olympus and Pole Hill tunnels.
Pole Hill Canal.
Rattlesnake tunnel.
Bald Mountain tunnel (pressure).
Flatiron Canal.
Carter Lake conduit and tunnel (pressure).
St. Vrain supply canal.
Boulder Creek supply canal.
South Platte supply canal.
Horsetooth supply conduit (tunnel No. 1) and Big Thompson diversion structure.
Charles Hansen (Horsetooth) feeder canal.
Charles Hansen (Poudre supply) canal.
North Poudre supply canal and diversion dam.

PUMPING PLANTS

Granby pumping plant (600 c. f. s.—186 feet).
Willow Creek pumping plant (400 c. f. s.—175 feet).
Flatiron pumping plant (370 c. f. s.—240 feet).

POWERPLANT AND TRANSMISSION SYSTEM

Green Mountain powerplant (21,600 kilowatts).
Marys Lake powerplant (8,100 kilowatts).
Estes powerplant (45,000 kilowatts).
Pole Hill powerplant (33,250 kilowatts).
Flatiron powerplant (71,500 kilowatts).
Big Thompson powerplant (4,500 kilowatts).
789 circuit miles of transmission lines.
42 substations.

Construction of the project works has been completed with the exception of the Big Thompson powerplant, scheduled for completion in 1959. Hydroelectric power was initially generated at the Green Mountain powerplant in May 1943. Installed capacity of all Colorado-Big Thompson powerplants will total 183,950 kilowatts. Initial delivery of irrigation water was made to the

northern Colorado water conservancy district in 1947.

The United States operated and maintained all project works as completed until January 1, 1957. Deliveries of irrigation water were made from 1947 to 1950, inclusive, under contract I1r-1495 and from 1951 to 1956, inclusive, under contract I81r-1414, both mentioned hereinafter. Long-range operations began January 1, 1957, under the original 1938 contract, as amended. Under the long-range operation, the United States will operate and maintain all specific power facilities at no cost to the district. It will also operate and maintain the so-called joint works, the use of which are shared in the production of power and the collection, conservation, and transportation of irrigation water including, among other things, the terminal storage reservoirs on the eastern slope, the costs of which will be shared equally by the United States and the district. The supply canals leading from the terminal storage reservoirs will be operated and maintained by the district at no cost to the United States. Irrigation water will be delivered to the northern Colorado water conservancy district primarily at the outlet works of Carter Lake and Horsetooth Reservoirs (terminal storage reservoirs) and at the Big Thompson Spillway in the Charles Hansen feeder canal. The transportation and delivery of the water from these points to the district's allottees will be the responsibility of the district in collaboration with the Colorado State engineer and the private irrigation districts and canal companies.

Repayment and water service contracts.—The initial contract, dated July 5, 1938, between the United States and the northern Colorado water conservancy district provides for the repayment of \$25 million of project construction costs over a period of 40 years. This contract has been amended to increase the district's fixed construction obligation by \$1,031,000. It has also been amended to provide \$2,966,370 additional revenues from water rentals, during the period preceding the beginning of the repayment installments, for application against increases in the construction costs. The total fixed construction obligations of the district plus net revenues from water rentals amounts to \$28,997,370. The district will pay fixed annual water-rental charges through 1961 and fixed annual installments of its construction charge obligation for the ensuing 40 years.

The United States also has contracted with the town of Estes Park, whereby the town has agreed to pay \$1,125 per annum in perpetuity for power losses associated with water diverted to the town from the project supply. During the conservancy district's 40-year repayment period, this power-loss payment will total \$45,000.

CONTRACTS

- 1938, July 5: Contract I1r-1051 with the northern Colorado water conservancy district for construction of Colorado-Big Thompson project. The construction charge obligation of \$25 million is to be repaid in 40 consecutive annual installments, the first 20 of which shall be \$450,000 each; the next 10, \$500,000 each; and the last 10, \$1,100,000 each.
- 1939, November 6: Contract I2r-11555 between the United States and the town of Estes Park, Colo., provides for the use of 500 acre-feet of domestic water per annum by the town. The construction obligation, in two parts, is composed of \$40,000 to be paid to the United States in 40 equal annual installments for credit on the construction obligation of the northern Colorado water conservancy district, and \$1,705 payable in 40 installments for construction of the city's tap. The town will also pay to the United States annually and in perpetuity, for the right to divert 500 acre-feet annually to municipal use, \$125 as an operation and maintenance charge and \$1,125 for the loss in power production by the United States.
- 1947, January 14: Contract I1r-1495 with the northern Colorado water conservancy district providing for temporary deliveries at East Portal Reservoir to a district pipeline, at a rate of \$1.50 per acre-foot of water. This contract produced earnings totaling \$83,506.50 prior to January 1, 1951, and was terminated by the contract of December 15, 1950.
- 1950, July 14: Contract I1r-1051 with the northern Colorado water conservancy district amended the contract of July 5, 1938, by increasing the district's obligation to cover the increased cost of constructing the North Poudre supply canal system for gravity service in lieu of the pumping system originally planned. The district's construction obligation was increased by \$889,000 to a total of \$25,889,000; the increase to be paid in 40 installments of \$22,225 concurrently with the original obligation installments.
- 1950, December 15: Contract I81r-1414 with the northern Colorado water conservancy district amended the 1938 contract to the extent of modifying the rates and conditions under which irrigation water would be made available pending commencement of the construction repayment period. Water charges on a per acre-foot basis to be fixed annually by the Secretary of the Interior. Net revenues amounted to \$1,363,367 from January 1, 1951, to December 31, 1956, when contract was terminated by contract of September 10, 1956.

- 1953, April 8: Contract I81r-1414, amendment No. 1, with the northern Colorado water conservancy district modified the operating provisions of the contract of December 15, 1950.
- 1954, October 12: Contract I14-1051, Supplement No. 1, with the northern Colorado water conservancy district modified the contract of July 14, 1950, by increasing the construction obligation associated with the North Poudre supply canal as a gravity system in the amount of \$142,000. This increase is to be paid in 40 concurrent installments of \$3,550 each. It increased the total of the District's fixed construction obligation to \$26,031,000.
- 1956, September 10: Contract I1r-1051, Supplement No. 2, with the northern Colorado water conservancy district modifies the contracts of July 5, 1938, and December 15, 1950, as amended April 8, 1954, by establishing fixed, annual, water-rental payments in the years 1957 through 1961. The water-rental collections to be made under this contract total \$1,519,497. It provides for payment December 31, 1962, of the district's initial installment on its construction obligation contract and establishes arrangements for water management and project operation beginning January 1, 1957.

The schedule of water rentals and construction repayment, northern Colorado water conservancy district:

Water rentals:

1. Net revenues under contract I14-1495, January 1947 (1947-50, inclusive)-----	\$83, 506
2. Net revenues under contract I8r-1414, December 1950 (1951-56, inclusive)-----	1, 363, 367
3. Net <i>water-rental</i> payments to be made under contract I1r-1051, supplement No. 2, September 1956 (1957-61, inclusive)-----	1, 519, 497
Subtotal—net revenues from <i>water rentals</i> -----	2, 966, 370

Construction obligation (contract I1r-1051 July 1938, amended July 1950, and supplement No. 1, October 1954):

Installments 1962 through 1981 at \$475,775 per year-----	9, 515, 500
Installments 1982 through 1991 at \$525,775 per year-----	5, 257, 750
Installments 1992 through 2001 at \$1,121,775 per year-----	11, 217, 750
Construction payments by town of Estes Park, 1955-94-----	¹ 40, 000

Subtotal district construction obligation-----
26, 031, 000

Total water rentals and construction repayment-----
28, 997, 370

¹ Credit to construction obligation of the northern Colorado water conservancy district at \$1,000 per annum for 40 years beginning Dec. 31, 1955.

City of Estes Park-----	\$1, 705
Total repayment-----	² 28, 999, 075

² Fixed by revenues actually collected and current contracts. This amount is \$31,925 less than amount estimated for previously prepared payout study herein.

The summary of status of repayment contracts:

Total value of contracted repayment-----	¹ \$26, 032, 705
Total matured charges-----	128
Total matured charges repaid-----	128
Total matured charges unpaid-----	0

¹ Represents construction obligation of northern Colorado water conservancy district and city of Estes Park.

The total estimated project construction cost is \$158,998,545. The allocation is \$100,661,583 of the cost to irrigation and \$58,336,962 to power, excluding interest during construction. The total estimated cost includes \$1,355,086 for construction of the Salida-Gunnison transmission line completed in 1953, which will eventually be transferred to the potential Fryingpan-Arkansas project. The project water users will repay \$26,032,705 over a period of 40 years beginning December 31, 1962. In addition, \$2,966,370 consisting of annual water-rental charges in excess of operation and maintenance costs will be applied against construction costs. Power revenues are scheduled to return \$130,817,583 of project costs including \$2,205,124 interest during construction. The power allocation of \$58,336,962 is reimbursable with interest.

The Colorado-Big Thompson power system is linked through a transmission grid with the North Platte, Riverton, Kendrick, Shoshone, and Missouri River Basin projects in Wyoming. Project surplus energy is marketed by the Missouri River Basin project transmission system. A transmission tie to a Pacific Power & Light Co. line at Lovell, Wyo., in December 1956, links the system to the Northwest Power Pool.

The cost and repayment allocations:

Total estimated project cost-----	\$158, 998, 545
Interest during construction-----	2, 205, 124
Total-----	161, 203, 669
Less chargeable to proposed Fryingpan-Arkansas project-----	1, 355, 086
Total-----	159, 848, 583
Allocation of reimbursable costs:	
Irrigation-----	100, 661, 583
Power-----	56, 981, 876
Interest during construction-----	2, 205, 124
Total-----	159, 848, 583

Repayment of reimbursable costs:

From power revenues:

Costs allocated to power-----	\$56, 981, 876
Interest during construction-----	2, 205, 124
Costs allocated to irrigation-----	71, 630, 583

Subtotal----- 130, 817, 583

From irrigation water users:

Repayment contracts-----	26, 031, 000
Water rentals-----	3, 000, 000

Subtotal----- 29, 031, 000

From other projects----- 1, 355, 086

Total probable repayment----- 161, 203, 669

Advance collections were received from the

northern Colorado water conservancy district and applied to water used as shown in the table below. Of the collections, 10% or \$228,277, was set aside in a prepayment account, to be applied as offset against the district's share of cost of operation and maintenance of joint works during the second period of operation, which began January 1, 1957. Fifty percent of the cost of operation and maintenance of joint works is allocated to the district. These consist of all facilities except strictly irrigation facilities, which were operated by the district, and power facilities operated by the United States. Water rental accruals and collections prior to operation of the interim contract were \$83,506.

Operation and maintenance collections

Fiscal year	Net collections ¹	Total operation and maintenance costs	Allocation to irrigation	Allocated to electric operations	Excess of revenues over irrigation allocation	Net revenues, cumulative
1951-----	\$44, 910	\$41, 460	\$20, 730	\$20, 730	\$24, 180	\$24, 180
1952-----		178, 587	89, 293	89, 293	(89, 293)	(65, 114)
1953-----	² 191, 237	² 192, 816	104, 582	88, 235	86, 655	21, 540
1954-----	750, 338	243, 237	121, 618	121, 618	628, 720	650, 260
1955-----	513, 000	288, 777	144, 388	144, 388	368, 612	1, 018, 871
1956-----	318, 757	275, 673	137, 836	137, 836	180, 921	1, 199, 792
1957-----	236, 250	146, 492	73, 246	72, 675	163, 004	1, 363, 367
Credit unidentifiable by years-----	{ ----- 2, 054, 492	(1, 142) 1, 365, 900	(571) 691, 122	----- 674, 775	571 1, 363, 370	-----

¹ Gross collections reduced by 10 percent as credit to northern Colorado water conservancy district for use as its share of operation and maintenance during early years of operation under basic contract.

² Includes \$8,174 operation and maintenance of Poudre supply canal, 100 percent allocated to district advance.

Payout study

Fiscal year	Power						Irrigation		Recapitulation		
	Repayment components of net power revenues		Investment repayment from power revenues—plant in service at end of year				Conservancy district payments	Investment repayment		Net project revenues	Earned surplus (cumulative)
			Interest bearing		Interest free			Amount expected under contracts	Interest free balance to be repaid		
			Electric plant	Balance to be repaid	Irrigation plant	Balance to be repaid					
Prior to 1943.....	0	—\$15,927	\$2,449,796	0					—\$15,927		
1943.....	\$73,494	—16,345	2,449,796						57,149		
1944.....	386,301	311,839	2,561,621	2,281,954					386,301		
1945.....	392,901	324,442	2,717,480	2,113,471					392,901		
1946.....	495,217	431,813	2,791,389	1,755,567					495,217		
1947.....	434,496	381,829	2,828,271	1,410,620					434,496		
1948.....	476,666	434,347	2,849,369	997,371					476,666		
1949.....	354,928	325,007	2,945,454	768,449					354,928		
1950.....	349,295	326,242	6,966,804	4,662,557					349,295		
1951.....	368,509	231,632	20,694,070	17,956,191					392,689		
1952.....	36,429	—502,257	24,013,544	21,777,922				\$65,114	—89,294		
1953.....	182,948	653,338	31,871,911	30,106,679	\$53,216,960	\$53,216,960		21,591,632	21,570,992		
1954.....	1,87,843	903,200	57,439,000	61,669,913	61,669,913	61,669,913		25,021,232	24,370,972		
1955.....	1,709,020	1,284,643	59,393,315	69,819,336	69,819,336	69,819,336		28,327,684	27,308,813		
1956.....	2,731,326	1,043,033	57,923,635	53,753,381	70,883,466	70,883,466		28,759,431	27,559,639		
Subtotal.....	10,147,101	5,976,847	57,923,635	53,753,381	70,883,466	70,883,466	1,199,792	28,759,431	27,559,639	11,346,893	
1957.....	2,880,364	1,612,282	58,039,020	52,591,694	70,883,466	70,883,466	163,575	28,759,431	27,396,064	3,052,929	
1958.....	2,990,949	1,577,751	58,050,162	51,229,638	71,630,583	71,630,583	182,633	29,031,000	27,485,000	3,133,582	
1959.....	2,931,021	1,536,889	59,187,000	50,972,344	71,630,583	71,630,583	111,000	29,031,000	27,374,000	3,042,021	
1960.....	3,025,734	1,529,170	59,187,000	49,475,780	71,630,583	71,630,583	451,000	29,031,000	26,923,000	3,476,734	
1961.....	3,025,734	1,484,273	59,187,000	47,934,319	71,630,583	71,630,583	451,000	29,031,000	26,472,000	3,476,734	
1962.....	3,025,734	1,438,030	59,187,000	46,346,615	71,630,583	71,630,583	451,000	29,031,000	26,021,000	3,476,734	
1963.....	3,025,734	1,390,398	59,187,000	44,711,279	71,630,583	71,630,583	476,775	29,031,000	25,544,225	3,502,509	
1964.....	3,025,734	1,341,338	59,187,000	43,026,883	71,630,583	71,630,583	476,775	29,031,000	25,067,500	3,502,509	
1965.....	3,025,734	1,290,869	59,187,000	41,291,955	71,630,583	71,630,583	476,775	29,031,000	24,590,675	3,502,509	
1966.....	3,025,734	1,238,759	59,187,000	39,504,980	71,630,583	71,630,583	476,775	29,031,000	24,113,900	3,502,509	
1967.....	3,025,734	1,185,149	59,187,000	37,664,905	71,630,583	71,630,583	476,775	29,031,000	23,637,125	3,502,509	
1968.....	3,025,734	1,129,032	59,187,000	35,768,593	71,630,583	71,630,583	476,775	29,031,000	23,160,350	3,502,509	
1969.....	3,025,734	1,073,058	59,187,000	33,815,917	71,630,583	71,630,583	476,775	29,031,000	22,683,575	3,502,509	
1970.....	3,025,734	1,014,478	59,187,000	31,804,661	71,630,583	71,630,583	476,775	29,031,000	22,206,800	3,502,509	
1971.....	3,025,734	954,140	59,187,000	29,733,067	71,630,583	71,630,583	476,775	29,031,000	21,730,025	3,502,509	
1972.....	3,025,734	891,992	59,187,000	27,599,325	71,630,583	71,630,583	476,775	29,031,000	21,253,250	3,502,509	
1973.....	3,025,734	827,980	59,187,000	25,401,571	71,630,583	71,630,583	476,775	29,031,000	20,776,475	3,502,509	
1974.....	3,025,734	762,047	59,187,000	23,137,884	71,630,583	71,630,583	476,775	29,031,000	20,299,700	3,502,509	
1975.....	3,025,734	694,137	59,187,000	20,806,287	71,630,583	71,630,583	476,775	29,031,000	19,822,925	3,502,509	
1976.....	3,025,734	629,180	59,187,000	18,404,742	71,630,583	71,630,583	476,775	29,031,000	19,346,150	3,502,509	
1977.....	3,025,734	552,142	59,187,000	15,931,150	71,630,583	71,630,583	476,775	29,031,000	18,869,375	3,502,509	
1978.....	3,025,734	477,635	59,187,000	13,383,351	71,630,583	71,630,583	476,775	29,031,000	18,392,600	3,502,509	
1979.....	3,025,734	401,504	59,187,000	10,759,118	71,630,583	71,630,583	476,775	29,031,000	17,915,825	3,502,509	
1980.....	3,025,734	322,774	59,187,000	8,056,158	71,630,583	71,630,583	476,775	29,031,000	17,439,050	3,502,509	
1981.....	3,025,734	241,685	59,187,000	5,272,109	71,630,583	71,630,583	476,775	29,031,000	16,962,275	3,502,509	
1982.....	3,025,734	158,163	59,187,000	2,404,538	71,630,583	71,630,583	476,775	29,031,000	16,485,500	3,502,509	
1983.....	3,025,734	72,136	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	15,431,950	3,552,509	
1984.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	15,405,175	3,552,509	
1985.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	14,378,400	3,552,509	
1986.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	13,851,625	3,552,509	
1987.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	13,324,850	3,552,509	
1988.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	12,798,075	3,552,509	
1989.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	12,271,300	3,552,509	
1990.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	11,744,525	3,552,509	
1991.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	11,217,750	3,552,509	
1992.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	10,691,975	3,552,509	
1993.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	10,165,200	4,151,509	
1994.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	9,639,425	4,151,509	
1995.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	9,112,650	4,151,509	
1996.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	8,585,875	4,151,509	
1997.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	8,059,100	4,151,509	
1998.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	7,532,325	4,151,509	
1999.....	3,025,734	0	59,187,000	0	71,630,583	71,630,583	526,775	29,031,000	7,005,550	4,151,509	

2000	3,025,734	0	0	59,187,000	0	71,630,583	19,644,045	1,125,775	29,031,000	2,211,550	4,151,509	0
2001	3,025,734	0	0	59,187,000	0	71,630,583	16,618,311	1,125,775	29,031,000	1,085,775	4,151,509	0
2002	3,025,734	0	0	59,187,000	0	71,630,583	13,592,577	1,085,775	29,031,000	0	4,111,509	0
2003	3,025,734	0	0	59,187,000	0	71,630,583	10,566,843	0	29,031,000	0	3,025,734	0
2004	3,025,734	0	0	59,187,000	0	71,630,583	7,541,109	0	29,031,000	0	3,025,734	0
2005	3,025,734	0	0	59,187,000	0	71,630,583	4,515,375	0	29,031,000	0	3,025,734	0
2006	3,025,734	0	0	59,187,000	0	71,630,583	1,489,641	0	29,031,000	0	3,025,734	0
2007	3,025,734	0	0	59,187,000	0	71,630,583	0	0	29,031,000	0	3,025,734	\$1,536,093
2008	3,025,734	0	0	59,187,000	0	71,630,583	0	0	29,031,000	0	3,025,734	4,561,827
2009	3,025,734	0	0	59,187,000	0	71,630,583	0	0	29,031,000	0	3,025,734	7,587,561
Total	170,205,125	31,799,981	59,187,000	59,187,000	0	71,630,583	0	29,031,000	29,031,000	0	199,236,125	7,587,561

COLORADO RIVER PROJECT

AUSTIN, TEX.

Construction of Marshall Ford Dam in Travis County near Austin, Tex., by the Bureau of Reclamation was authorized by the Rivers and Harbors Act of August 26, 1937 (50 Stat. 850). Primarily a flood-control project, the dam and reservoir serve also to improve navigation, regulate stream flow, and provide water for storage for irrigation uses and power generation. The completed project cost to June 30, 1956, was \$23,963,881. The Bureau's construction program is completed.

The dam and reservoir are operated by the Lower Colorado River Authority of Texas in accordance with a contract between the authority and the United States dated March 13, 1941. A powerplant has been constructed by the authority at the dam, renamed Mansfield Dam, and they operate and maintain the powerplant and market all energy produced.

Repayment contracts.—A determination has been made that \$5,510,500 is the portion of the construction cost to be reimbursed to the United States. The reimbursement will be accomplished under the terms of contract Ilr-1262 dated December 9, 1948, between the United States and the Lower Colorado River Authority. Repayment will be made in 35 equal annual installments of \$157,443, with the first installment to be paid on June 1, 1985.

The cost and repayment allocations:

Total project cost:	
Marshall Ford Dam and Reservoir.....	\$23, 439, 644
Investigations for Hamilton, Marble Falls, Arnold, and Austin Dams.....	524, 237
Total.....	<u>23, 963, 881</u>

Allocation of costs:

Reimbursable costs:	
Power.....	5, 510, 500
Contribution toward investigation of Hamilton Dam.....	9, 581
Nonreimbursable costs:	
Power.....	4, 956, 542
Flood control (includes improvement of navigation and stream regulation).....	12, 972, 602
Investigations for Hamilton, Marble Falls, Arnold, and Austin Dams.....	514, 656
Total.....	<u>23, 963, 881</u>

The allocation of Marshall Ford Dam and Reservoir costs are determined as follows: The Secretary, pursuant to article 11 of a contract dated March 13, 1941, between the United States and the Lower Colorado River Authority, issued a "Report on Allocation of Construction Costs, Marshall Ford Dam" dated September 1948 in which \$12,888,636 was allocated to improvement of navigation, flood control, and stream regulations and \$10,399,267 to generation of power. The total estimated cost of Marshall Ford Dam was \$23,287,903 in 1948, and the completed cost is \$23,439,644. Allocations have been increased in the same proportions as those determined in the 1948 report to conform with the finally determined cost.

COLORADO RIVER FRONT WORK AND LEVEE SYSTEM

ARIZONA-CALIFORNIA-NEVADA

The Colorado River front work and levee system was authorized by the acts of March 3, 1925 (43 Stat. 1186, 1198); January 21, 1927 (44 Stat. 1010, 1021); July 1, 1940 (54 Stat. 708); and particularly the act of June 28, 1946 (60 Stat. 338). The act of March 3, 1925, had as its objective the reimbursement of the Reclamation fund for the cost of operation and maintenance of levees in the vicinity of Yuma theretofore incurred, and the payment thereafter of operation and maintenance costs not to exceed a specified amount annually. Subsequent acts increased the authorization and extended the application of the act to include the Colorado River between Yuma, Ariz., and Lees Ferry, Ariz. The act of June 28, 1946 (60 Stat. 338), authorizes appropriations to defray the cost of (a) operating and maintaining the Colorado River front work and levee system in Arizona, California, and Nevada; (b) constructing, improving, extending, operating, and maintaining the protection and drainage works and systems along the Colorado River; (c) controlling said river and improving, modifying, straightening, and rectifying the channel thereof; and (d) conducting investigations and studies in connection therewith.

The work consists of a long-range program of corrective measures designed to conserve the waters of the Colorado River, control the movement of sediment, protect communities, protect transportation facilities, and protect agricultural land by controlling the bed and banks of the river. Channel alinement rectification, channel control structures, channel levees, channel revetment, and flood-control levees are used to confine

the river to the designed channel during variations of discharge.

The major project works include about 43 miles of flood-control levees along the Colorado River upstream and downstream from Yuma, Ariz.; channelization of about 12 miles of the river, with structures and channel levee, between Needles, Calif., and Topock, Ariz. (headwaters of Havasu Lake), and channelization of about 8 miles of the river, with partially completed structures, upstream from Needles in the Big Bend to Needles Reach; the Palo Verde temporary rock weir across the river about 12 miles upstream from Blythe, Calif. (which will be removed upon completion of the Palo Verde diversion dam); sedimentation survey of Lake Mead; and a continuing program of the collection of data concerning river degradation and aggradation, sediment removed and deposited by the river, and data relating to the hydraulic characteristics of the river.

The major work in progress is the continuation of the channelization program in the 23-mile Big Bend to Needles Reach; studies of the Palo Verde diversion dam to Imperial Dam Reach; studies of the Imperial Dam to the southern boundary of the United States reach; and acquisition of a floating 12-inch cutter-type hydraulic suction maintenance dredge.

All project works are maintained by Government forces supplemented by contract work where feasible.

The total actual cost through June 30, 1957, of operating and maintaining the Colorado River front work and levee system was \$8,150,344. The completed construction program cost a total

of \$9,692,687, including costs transferred from the Yuma project pursuant to the act of Congress, September 2, 1950. Also included in the above construction cost is a program of levee rehabilitation and reconstruction which was completed in the vicinity of Yuma at a cost of \$2,536,711.

Expenditures under the act of June 28, 1946,

and preceding acts are nonreimbursable. However, the cost of the portion of the flood-control levees constructed in the Yuma area, which were required by reason of the construction of Morelos Dam, has been paid for in part by the Mexican Government with the settlement of the final amount still pending.

COLORADO RIVER STORAGE PROJECT

COLORADO-NEW MEXICO-UTAH-WYOMING-ARIZONA

Project authorization

The Colorado River storage project, consisting initially of four storage units and 11 participating projects, was authorized on April 11, 1956 (70 Stat. 105).

The storage units include the Glen Canyon, Flaming Gorge, Navajo Dam, and the Curecanti Dams. Construction of the Curecanti unit is subject to a finding of feasibility by the Secretary of the Interior. The storage units will perform two major and essential functions. They will regulate streamflow so that water commitments to the lower Colorado River Basin can be met in dry periods without curtailment of the development of water uses allotted the upper basin. Also, they will produce much-needed hydroelectric energy. Power revenues in excess of costs of the storage units will be available for assistance in the repayment of costs of participating projects; namely, the costs that are beyond the payment capacity of the irrigation water users. Transmission of power to load centers will be a cooperative effort of existing public and private utilities in the area and the Bureau of Reclamation.

Participating projects are Reclamation projects consuming water allotted the upper Colorado River Basin and requiring storage replacement and revenue assistance from the storage project in the repayment of irrigation costs. The authorized participating projects include the previously authorized Paonia project, and the central Utah (initial phase), Emery County, Florida, Hammond, La Barge, Lyman, Pine River extension, Seedsdakee, Silt, and Smith Fork projects. Together they will provide water for 132,000 acres of full service land and 234,000 acres of supplemental service land. Repayment of the Eden project in Wyoming (now largely constructed) would be completed by the Colorado River

storage project. As provided by the Eden Authorizing Act of June 28, 1949 (63 Stat. 277), \$1,500,000 of the project's costs would be paid by the irrigators and the remainder would be repaid by the Colorado River storage project.

Information on units of the storage project and the participating projects is summarized below. Modifications in some of the plans may result from the definite plan studies that will precede construction.

Colorado River storage project

The various dams and reservoirs of the Colorado River storage project will regulate the flow of the river, thus permitting an expansion of irrigation and other water use in the upper basin within the limits of the Colorado River Compact. In most instances powerplants and switchyards will be installed at the dams, and transmission lines will be provided to transmit the power to load centers. Facilities will be provided as appropriate for recreation and to mitigate losses of, and improve conditions for, the propagation of fish and wildlife. Minor flood control and other benefits, largely unevaluated at present, are anticipated from the storage project.

The Colorado River storage project as outlined in the 1950 report included 10 storage units. Four of these were authorized for construction by the act of April 11, 1956 (70 Stat. 105). It is anticipated that additional units will be authorized as they become needed. The four authorized units are the Glen Canyon, Flaming Gorge, Navajo, and Curecanti. Together they will provide 34,670,000 acre-feet of reservoir capacity and about 1,167,000 kilowatts of installed generating capacity. More than three-fourths of both capacities will be provided by the Glen Canyon unit alone.

Glen Canyon unit.—Glen Canyon Dam will be on the Colorado River in northern Arizona, about

13 miles downstream from the Utah-Arizona State line and 16 miles upstream from Lee Ferry. It is the only one of the authorized dams that will be on the Colorado River proper.

Glen Canyon Dam will be a gravity arch concrete structure that will rise 700 feet above its foundation and 573 feet above the river. It will have a crest length of 1,500 feet. The dam will be the fourth highest in the world and second in height only to Hoover Dam in the United States. The reservoir will have a capacity of 28,040,000 acre-feet. When full, it will cover about 163,000 acres and will extend 186 miles up the Colorado River, nearly to the mouth of Green River, and 71 miles upstream on the tributary San Juan River. About 6,535,000 acre-feet of the reservoir capacity will be inactive and will be useful for sediment accumulation, to protect fish, and to provide the power head at the dam. A powerplant and switchyard will be constructed at the dam. The powerplant will include eight generating units with a total installed capacity of 900,000 kilowatts. An access road and a bridge across the canyon about 900 feet downstream from the dam site will be constructed to Federal highway standards.

Measures will be taken to protect the Rainbow Bridge National Monument at one of the side bays of the Glen Canyon Reservoir.

Flaming Gorge unit.—Flaming Gorge Dam will be on the Green River, a major tributary of the Colorado, in northeastern Utah about 6 miles south and 20 miles west of the corner common to Utah, Wyoming, and Colorado. The dam will be a concrete thin arch structure rising about 495 feet above its foundation and about 445 feet above the river. It will have a crest length of 1,270 feet. The reservoir will have a total capacity of about 3,930,000 acre-feet and an area of about 42,000 acres. It will extend upstream 93 miles, nearly to the town of Green River, Wyo. About 330,000 acre-feet of the reservoir capacity will be inactive. The powerplant at the dam will consist of 3 generating units with a total installed capacity of 108,000 kilowatts. A switchyard will be constructed nearby.

Navajo unit.—Navajo Dam will be constructed on the San Juan River in New Mexico, about 34 miles east of Farmington. The dam will be an earthfill structure about 385 feet high above the river and nearly 3,800 feet long at the crest. It will create the Navajo Reservoir with a total

capacity of 1,700,000 acre-feet, of which about 672,000 acre-feet will be inactive. The reservoir when full will inundate 15,300 acres and will extend approximately 34 miles up the San Juan River. Although the outlet works are such that a powerplant could be installed at a later date, no powerplant is included in the present plan. Recreational facilities will be provided at the reservoir.

The Navajo project (Indian irrigation), when authorized and constructed will obtain its water from the Navajo Reservoir. The reservoir will also provide water, directly or indirectly, for other potential projects in New Mexico.

Curecanti unit.—The Curecanti unit will develop storage and power possibilities along part or all of a 40-mile stretch of a deep canyon section of the Gunnison River above the Black Canyon of the Gunnison National Monument and below the town of Gunnison, Colo. In order to prevent the inundation of land near the town, the authorizing legislation provides that “* * * the Curecanti Dam (now called Blue Mesa Dam) shall be constructed to a height which will impound not less than 940,000 acre-feet of water or will create a reservoir of such greater capacity as can be obtained by a high waterline located at 7,520 feet above mean sea level. * * *” The act also requires that construction shall not be undertaken until further engineering and economic investigations have been made and until the Secretary of the Interior has certified to the Congress and the President that in his judgment the benefits of the unit will exceed its costs.

Bureau of Reclamation reconnaissance studies indicate that a favorable plan, consistent with the authorizing act, would include a series of four dams, reservoirs, powerplants, and switchyards. The developments, in order moving downstream, would be known as the Blue Mesa, Narrow Gauge, Morrow Point, and Crystal. Collectively the reservoirs would have a capacity of about one million acre-feet. The powerplants, with an installed generating capacity of about 159,000 kilowatts, would develop a maximum of about 940 feet of static power head.

The Blue Mesa Dam, located 30 miles downstream from Gunnison, would be the largest of the series in the Curecanti unit. It would be an earthfill structure about 350 feet high above its foundation and about 820 feet long at its crest. The reservoir would have a capacity of about

940,000 acre-feet at a high-water elevation of 7,520 feet. About 200,000 acre-feet of the reservoir capacity would be inactive. The active capacity would provide the principal seasonal river regulation for the unit powerplants. Recreational facilities would be provided at the reservoir.

Investigation and planning of the Curecanti unit are continuing in more detailed scope as required by the authorizing act.

Transmission division.—The authorizing act of April 11, 1956 (70 Stat. 105), provides that project powerplants and transmission facilities shall be operated in conjunction with other Federal powerplants, present and potential, so as to produce the greatest practicable amount of power and energy that can be sold at firm power and energy rates. To carry out the provisions of the law, a high-voltage transmission grid will be constructed to interconnect the plants of the authorized units of the storage project and to effect interconnection with other existing Federal powerplants and utility systems in the area.

The Transmission division includes the high-voltage lines from storage unit switchyards to substations at major load centers and points of interconnection and the substations at those points. Facilities of the Transmission division will be extended as necessary to provide interconnections with future units of the storage project and with other Federal plants and to provide for interconnection of future participating project transmission lines with the high-voltage grid. The extent and location of the high-voltage transmission grid will depend on the market area requirements for project power, the desires of power users to purchase project power, points of interconnection with other systems, and the final allotments of power to various users.

Participating projects

Participating projects are those which will consume water of the Upper Colorado River system for irrigation and other purposes and which will require assistance from power revenues of the storage project in the repayment of irrigation costs. An initial group of 11 participating projects was authorized by the act of April 11, 1956 (70 Stat. 105). These include the Paonia, Smith Fork, Florida, and Silt projects in Colorado; the

Pine River Extension project in Colorado and New Mexico, the Hammond project in New Mexico; the Central Utah (initial phase) and Emery County projects in Utah; and the Seedskaadee, La Barge, and Lyman projects in Wyoming. The projects combined will provide water for a total of about 365,100 acres, including about 132,800 acres of full service land and about 232,300 acres of supplemental service land.

Paonia project.—The Paonia project on the North Fork of the Gunnison River in west-central Colorado was partially constructed under the authorizing act of June 25, 1947 (61 Stat. 181). It was reauthorized by the act of April 11, 1956 (70 Stat. 105), and the entire development was linked with the basin fund as a participating project. The project will provide water to 2,200 acres of full service land and 13,100 acres of supplemental service land. It will provide incidental benefits to fish and wildlife, recreation, and flood control.

The Fire Mountain Canal was enlarged and partially extended under the initial authorization. Work yet to be accomplished under the 1956 reauthorization includes construction of the Paonia Reservoir on Muddy Creek to a capacity of 21,000 acre-feet, further extension of the Fire Mountain Canal and rehabilitation of critical sections of the previously enlarged canal.

Pine River project extension.—An extension will be constructed to the existing Pine River project, located in southwestern Colorado and northwestern New Mexico about 20 miles east of Durango, Colo. The extension will provide irrigation water for about 15,200 acres of full service land, of which about 1,940 acres are within the Pine River Indian irrigation project. The extension will involve enlargement and extension of eight major canals and ditches diverting from Pine River, a new diversion dam, and several small distribution laterals.

Smith Fork project.—The Smith Fork project will be constructed in west-central Colorado along the Smith Fork of Gunnison River near Crawford. It will provide water for about 2,300 acres of full service land and 8,200 acres of supplemental service land. Recreational opportunities also will be provided. Construction features will include the Crawford Reservoir with 14,000 acre-feet of capacity, a diversion dam, feeder canals, and laterals.

Florida project.—The Florida project will be constructed in southwestern Colorado on the

Florida River. Construction features will include the Lemon Reservoir with a capacity of about 23,000 acre-feet, a diversion dam, and distribution and drainage systems. An existing canal also will be enlarged. The works will provide a full supply of water for about 6,300 acres of land and a supplemental supply for about 12,700 acres. Operation of the project also will provide flood control and some enhancement of fish and wildlife values in the area.

Silt project.—The Silt project will provide water for about 1,900 acres of full service land and 5,400 acres of supplemental service land between Rifle and Elk Creeks in west-central Colorado. The project also will enhance fish and wildlife values in the area. Construction features will include the Rifle Gap Reservoir of 10,000 acre-foot capacity, a pumping plant, diversion dam and feeder canal, and laterals and drains. Some existing works will be rehabilitated.

Hammond project.—The Hammond project in northwestern New Mexico will divert San Juan River water for irrigation of about 4,000 acres of full service land along the river in the vicinity of Farmington and Bloomfield. Principal features of the development will be a diversion dam, distribution canal, pumping plant, and lateral and drainage systems.

Central Utah project (initial phase).—The Central Utah project (initial phase) will be an extensive undertaking to develop water resources of the Uinta Basin, a segment of the Colorado River Basin in northeastern Utah. Part of the developed water will be conveyed westward for use in the Bonneville Basin in Central Utah and the remainder will be used in the Uinta Basin. Reservoirs with a total capacity of about 1,663,000 acre-feet will make water available to about 28,600 acres of full service land and about 131,800 acres of supplemental service land. Four project powerplants will have a combined installed capacity of 61,000 kilowatts. Approximately 48,800 acre-feet of water will be provided annually for municipal, industrial, and miscellaneous uses. The project will provide recreational benefits and will have value in flood and sediment control.

The potential Strawberry aqueduct will intercept flows of Rock Creek and streams west of Rock Creek. It will convey the water to the existing Strawberry Reservoir on Strawberry River which will be enlarged through construction of Soldier Creek Dam downstream from the

present dam. The existing outlet tunnel from the reservoir will be enlarged. This tunnel conveys water westward through the Wasatch Mountain divide to the Bonneville Basin. In descending the west slope of the Wasatch Mountains, the water will pass through a series of four powerplants. In the Bonneville Basin the water will be used in an area extending from Salt Lake City south 80 miles to Nephi. Part of the use will be effected by exchanges involving the waters of Utah Lake, Provo River, and other streams. These exchanges will require construction of Bates Dam on Provo River, Hobbie Creek Dam on Little Hobbie Creek, and the Front Dam near Salt Lake City. Transmission lines will be constructed to serve local market areas and to interconnect with the main grid transmission system.

New project works to provide water for replacement and expanded irrigation and municipal use in the Uinta Basin will include Hanna Reservoir on the North Fork of the Duchesne River, Starvation Reservoir on Strawberry River with a feeder canal from the Duchesne River, the Upalco Reservoir offstream from Lake Fork River, the Stanaker Reservoir with feeder canal from Ashley Creek and a service canal (Vernal unit), and Tyzack Reservoir on Brush Creek.

Emery County project.—The Emery County project will be in the headwaters of the San Rafael River in east-central Utah. It will provide irrigation water for about 3,600 acres of full service land and 20,500 acres of supplemental service land and will provide for recreational opportunities. Joes Valley Reservoir with a total capacity of 57,000 acre-feet, a diversion dam, canal, laterals, and drains will be the principal features of the project.

Seedskadee project.—The Seedskadee project will be constructed in southwestern Wyoming along the Green River below the authorized La Barge project. Principal works under the present tentative plan include a diversion dam on the river, conveyance canals, pumps, and distribution laterals. Such works will provide an irrigation water supply for about 60,700 acres of full service land.

Modifications of the plan to provide storage, power, and fish and wildlife facilities are being investigated. As the studies are still incomplete, however, the modifications are not included in the project data used in this report.

Lyman project.—The Lyman project will be constructed in southwestern Wyoming along Blacks Fork of the Green River near the Wyoming-Utah boundary. It will supplement the irrigation water supply for about 40,600 acres of land. Bridger Reservoir will be constructed on Willow Creek to a capacity of 43,000 acre-feet. Other features will include feeder canals to the reservoir, return canals to distribute the reservoir releases,

improvement of the Willow Creek Channel, drainage, and improvement of the existing irrigation system.

La Barge project.—The La Barge project will divert water directly from the Green River in southwestern Wyoming to provide irrigation water for about 8,000 acres of full service land. Project works will include a diversion dam, conveyance canal, distribution laterals, and drains.

Summary of irrigation and power data—Colorado River storage project and participating projects

Units and projects	Irrigable area (acres)			Total reservoir storage capacity (acre-feet)	Installed powerplant capacity (kilowatts)	Average annual water supply (acre-feet)	
	Full service land	Supplemental service land	Total			Increase in usable irrigation supply	Increase in stream depletion
Storage units:							
Glen Canyon.....				28, 040, 000	900, 000		576, 000
Flaming Gorge.....				3, 930, 000	108, 000		62, 000
Navajo.....				1, 700, 000			39, 000
Curecanti.....				1, 000, 000	159, 000		14, 000
Subtotal.....				34, 670, 000	1, 167, 000		691, 000
Participating projects:							
Paonia, Colo.....	2, 200	13, 100	15, 300	21, 000		20, 100	9, 800
Pine River extension, Colorado and New Mexico.....	15, 200		15, 200			45, 450	28, 300
Smith Fork, Colo.....	2, 300	8, 200	10, 500	14, 000		13, 650	7, 500
Florida, Colo.....	6, 300	12, 700	19, 000	23, 000		23, 200	12, 900
Silt, Colo.....	1, 900	5, 400	7, 300	10, 000		10, 100	5, 800
Hammond, N. Mex.....	4, 000		4, 000			18, 400	9, 300
Central Utah (initial phase), Utah.....	28, 600	131, 800	160, 400	1, 663, 000	61, 000	175, 200	189, 400
Emery County, Utah.....	3, 600	20, 500	24, 100	57, 000		32, 400	15, 500
Seedsadee, Wyo.....	60, 700		60, 700			225, 800	110, 400
Lyman, Wyo.....		40, 600	40, 600	43, 000		32, 500	
La Barge, Wyo.....	8, 000		8, 000			24, 300	14, 200
Subtotal.....	132, 800	232, 300	365, 100	1, 831, 000	61, 000	621, 100	403, 100
Total.....	132, 800	232, 300	365, 100	36, 501, 000	1, 228, 000	621, 100	1, 094, 100

¹ In addition, an average of 48,800 acre-feet annually will be made available for municipal, industrial, and miscellaneous uses under the initial phase of the Central Utah project.

Summary of project costs—Colorado River storage project and participating projects

[Unit—\$1,000]

Units and projects	Total construction costs ¹	Expenditures for past investigations			Construction costs exclusive of costs of past investigations	Annual operation, maintenance, and replacement costs ²
		From reclamation fund	From Colorado River development fund	From Upper Colorado River Basin fund		
Storage units:						
Glen Canyon.....	³ 325,704	⁴ 404	615	-----	³ 324,685	2,736
Flaming Gorge.....	66,591	60	86	-----	66,445	406
Navajo.....	⁵ 42,579	6	39	-----	⁵ 42,534	24
Curecanti.....	⁶ 84,963	103	97	94	⁶ 84,669	749
Transmission division.....	157,545	50	100	-----	157,395	2,367
Subtotal.....	677,382	623	937	94	675,728	6,282
Participating projects:						
Paonia, Colo.....	7,813	8	49	185	7,571	23
Pine River extension, Colorado and New Mexico.....	5,539	54	53	48	5,384	21
Smith Fork, Colo.....	3,533	29	72	16	3,416	12
Florida, Colo.....	7,433	12	22	65	7,334	16
Silt, Colo.....	3,548	55	17	13	3,463	12
Hammond, N. Mex.....	2,441	63	8	107	2,263	18
Central Utah (initial phase), Utah.....	235,850	⁷ 335	1,068	306	234,141	1,040
Emery County, Utah.....	9,913	⁸ 14	18	10	9,871	40
Seedskaadee, Wyo.....	25,470	41	410	259	24,760	183
Lyman, Wyo.....	11,436	52	60	1	11,323	62
La Barge, Wyo.....	1,816	21	65	-----	1,730	20
Subtotal.....	314,792	684	1,842	1,010	311,305	1,447
Total.....	992,174	1,307	2,779	1,104	987,033	7,729

¹ Based on January 1957 price level except that bid prices were used where available and actual costs of past investigations and construction were used.

² Operation and maintenance costs are based on 1954-56 price levels. Replacement costs are based on current construction cost estimates and are figured on a sinking-fund basis at 2½ percent interest over 100-year period.

³ Includes contribution of \$1,635,000 from State of Arizona and \$600,000 from Bureau of Public Roads for improvement of Glen Canyon bridge and access road to meet Federal highway standards.

⁴ Includes \$60,000 contributed by city of Los Angeles for investigation of Glen Canyon damsite.

⁵ Includes \$207,000 to be expended by the National Park Service for recreational facilities at Navajo unit.

⁶ Includes \$452,000 to be expended by the National Park Service for recreational facilities at Curecanti unit.

⁷ Includes \$62,000 contributed by the State of Utah and private groups.

⁸ Includes \$1,000 contributed by the State of Utah.

Summary of cost allocations and repayment—Colorado River storage project and participating projects

[Unit—\$1,000]

	Construction costs	Reimbursable interest during construction	Total reimbursable cost
Determination of reimbursable project cost:			
Project cost.....	992, 174		
Less nonrepayable items:			
Colorado River development fund..... 2, 779			
Contributed fund..... 2, 358	5, 137		
Allocable project cost.....	987, 037		
Less nonreimbursable allocations:			
Flood control..... 2, 641			
Recreation..... 2, 433			
Fish and wildlife..... 529	5, 603		
Reimbursable project cost.....	981, 434	49, 427	1, 030, 861
Plus reimbursable cost of Eden project..... 8, 191			
Less costs of Central Utah project reserved for repayment with ultimate phase of project..... 5, 750	2, 441		2, 441
Total costs reimbursable from scheduled revenues.....	983, 875	49, 427	1, 033, 302
Reimbursable cost allocations and scheduled repayment:			
Irrigation cost allocation:			
Payable by irrigators..... 31, 612			
Payable from power revenues..... 284, 985			
Payable from conservancy district tax..... 8, 443			
Total irrigation allocation and repayment.....	325, 040		325, 040
Power allocation (payable from power revenues).....	614, 416	46, 971	661, 387
Municipal and industrial water:			
Allocation (payable by water users).....	44, 419	2, 456	46, 875
Total reimbursable allocation and repayment.....	983, 875	49, 427	1, 033, 302
Surplus revenues accumulated to end of 85th year of operation (year 2046)..... 775, 528			

COLUMBIA BASIN PROJECT

EPHRATA, WASH.

The Columbia Basin project was begun with the allocation of NIRA funds pursuant to title II of the act of June 16, 1933. The project was specifically authorized by the Rivers and Harbors Act approved August 30, 1935 (49 Stat. 1028). The Columbia Basin Project Act of March 10, 1943 (57 Stat. 14), reauthorized the project, bringing it under the provisions of the Reclamation Project Act of 1939 (53 Stat. 1187).

Primary purposes of the project are (1) irrigation, (2) power generation, (3) river regulation, and (4) flood control and navigation, with additional secondary benefits in recreational development. Irrigation of 1,029,000 acres is planned ultimately. Water is being provided the initial 600,000 acres under a 10-year program, 1952-61, inclusive. Generators are installed with a combined nameplate capacity of 1,974,000 kilowatts.

Major project features include the Grand Coulee Dam; Franklin D. Roosevelt Lake, 151-mile reservoir behind the dam; Grand Coulee pumping plant and powerhouses; Grand Coulee Equalizing Reservoir, 27-mile storage reservoir; four earth-fill dams; and a number of major and minor canals, laterals, tunnels, and siphons.

At present all features are operated by the Bureau of Reclamation pending further development of the project.

The output of the Grand Coulee powerplant in excess of project requirements is marketed by the Bonneville Power Administration.

Repayment contracts.—Repayment contracts have been negotiated with the three irrigation districts. In addition, a number of individual contracts have been negotiated between the Government and the owners of part-time units for repayment of construction costs for the special irrigation systems to serve these units.

CONTRACTS

1945, October 9: Contract No. Ilr-1444 with South Columbia Basin irrigation district for repayment of construction cost of irrigation system for lands in the district up to a maximum of \$33,700,000. Repayment in 40 years following 10-year development period upon making first water available.

1945, October 9: Contract No. Ilr-1442 with East Columbia Basin irrigation district for repayment of construction cost of irrigation system for lands in the district up to a maximum of \$37,800,000. Repayment in 40 years following 10-year development period upon making first water available.

1945, October 9: Contract No. Ilr-1443 with Quincy-Columbia Basin irrigation district for repayment of construction cost of irrigation system for lands in the district up to a maximum of \$24,900,000. Repayment in 40 years following 10-year development period upon making first water available.

Various dates: 56 contracts negotiated with owners of part-time farm units in irrigation block No. 2 for repayment of special construction costs to a total of \$26,168. Repayment in 10 years from date of contract.

Various dates: 33 contracts negotiated with owners of part-time farm units in irrigation block No. 701 for repayment of special construction costs totaling \$17,063. Repayment in 10 years from date of contract.

Various dates: 51 contracts negotiated with owners of part-time farm units in irrigation block No. 41 for repayment of special construction costs totaling \$39,490. Repayment in 10 years from date of contract.

The summary of status of repayment contracts:

	Irrigation districts	Part-time farm unit owners	Totals
Total value of contracted repayment..	\$87,465,000	\$82,721	\$87,547,721
Total matured charges.....	0	68,230	68,230
Total matured charges repaid.....	0	68,000	68,000
Total matured charges unpaid.....	0	230	230

The total estimated cost of the project is \$756,055,000. In a report by the Bureau of Reclamation and the Bonneville Power Admin-

istration (H. Doc. No. 172, 79th Cong., 1st sess.), the cost of construction has been allocated among the several purposes of the project and the part of the Government's investment that is to be returned from various revenue-yielding sources.

The allocations of costs are as follows:

Reimbursable costs:

Irrigation.....	\$561, 236, 700
Power.....	192, 304, 860
Special distribution systems.....	1, 000, 000
Subtotal.....	754, 541, 560

Nonreimbursable costs:

Navigation and flood control.....	1, 000, 000
Spillway lighting, Grand Coulee Dam.....	200, 000

Contributions:

State of Washington.....	313, 440
Total.....	756, 055, 000

It has been determined tentatively that the irrigation district water users will pay directly approximately \$87,465,000, or an average of \$85 per irrigable acre in construction charges. Other sources and amounts scheduled for repayment are included in the following:

The repayment of reimbursable costs:

Power revenues:

Electric plant investment.....	\$192, 304, 860
Irrigation plant investment.....	473, 771, 700

Subtotal.....	666, 076, 560
Irrigation water users.....	87, 465, 000
Irrigation water users (part-time farm units).....	1, 000, 000

Total.....	754, 541, 560
------------	---------------

RECLAMATION REPAYMENTS

Payout study

Fiscal year	Net operating revenues	Repayment components of net power revenues				Power				Interest free		Irrigation		Recapitulation	
		Interest		Excess interest (principal)		Interest bearing		Interest free		Construction repayment by irrigation water users	Plant in service—allocated to irrigation at end of year to be repaid by water users	Interest-free balance to be paid	Net project revenues	Earned surplus, cumulative	
		Interest	Excess interest (principal)	Plant allocated to commercial electric	Balance to be repaid	Plant allocated to river regulation	Aid to irrigation plant								
							Required aid	Balance to be repaid	Earned surplus, cumulative						
1941-1944.....	\$8,041,197	\$4,683,988	\$3,357,209	\$70,665,076	\$67,307,867	\$28,784,677	\$43,798,828	\$43,798,828	\$43,798,828	0	0	\$8,645,304	\$8,645,304	\$8,041,197	0
1945.....	2,821,082	2,019,236	801,846	72,703,739	68,544,684	28,863,561	43,918,858	43,918,858	43,918,858	0	0	8,668,997	8,668,997	2,821,082	8,668,997
1946.....	3,811,452	2,036,340	1,755,112	74,646,973	68,732,805	29,416,023	44,759,486	44,759,486	44,759,486	0	0	8,834,925	8,834,925	3,811,452	8,834,925
1947.....	4,543,513	2,061,984	2,481,329	75,983,867	67,588,171	30,318,996	46,133,451	46,133,451	46,133,451	0	0	9,106,127	9,106,127	4,543,513	9,106,127
1948.....	4,170,561	2,027,645	2,142,916	83,532,240	72,993,678	29,743,018	45,257,042	45,257,042	45,257,042	0	0	8,933,136	8,933,136	4,170,561	8,933,136
1949.....	7,806,777	2,189,810	4,994,380	86,978,413	80,985,421	29,743,018	47,213,872	47,213,872	47,213,872	0	0	9,319,388	9,319,388	7,184,190	9,319,388
1950.....	7,675,870	2,143,363	4,730,268	119,383,126	98,186,720	31,654,527	50,242,210	50,242,210	50,242,210	0	0	9,917,141	9,917,141	7,806,777	9,917,141
1951.....	8,283,048	3,384,502	4,898,546	138,743,422	112,816,748	33,089,503	52,789,435	52,789,435	52,789,435	0	0	10,354,554	10,354,554	7,675,870	10,354,554
1952.....	8,153,510	3,358,188	4,782,765	156,091,037	125,265,817	37,333,332	61,356,904	61,356,904	61,356,904	0	0	11,817,783	11,817,783	8,283,048	11,817,783
1953.....	9,420,953	3,737,974	4,395,536	156,993,679	121,272,923	37,738,562	156,524,601	156,524,601	156,524,601	0	0	28,747,648	28,747,648	8,153,510	28,747,648
1954.....	9,717,200	3,507,366	6,209,834	157,915,718	110,170,627	37,826,494	188,510,004	188,510,004	188,510,004	0	0	34,989,460	34,989,460	9,420,953	34,989,460
1955.....	9,623,262	3,391,543	6,231,719	165,338,370	111,893,296	37,826,494	205,688,955	205,688,955	205,688,955	0	0	40,139,777	40,139,777	9,717,200	40,139,777
1956.....	9,295,900	3,356,799	5,938,101	195,234,700	135,850,525	29,432,352	236,475,906	236,475,906	236,475,906	0	0	43,155,954	43,155,954	9,295,900	43,155,954
1957.....	9,370,700	4,075,516	5,295,184	194,777,010	130,097,651	29,432,352	261,743,665	261,743,665	261,743,665	0	0	45,606,707	45,606,707	9,370,700	45,606,707
1958.....	9,450,900	3,902,930	5,547,970	194,416,820	124,189,491	29,432,352	273,816,227	273,816,227	273,816,227	0	0	47,874,075	47,874,075	9,450,900	47,874,075
1959.....	9,553,100	3,725,685	5,827,415	194,090,010	118,035,266	29,432,352	285,931,604	285,931,604	285,931,604	0	\$11,564	50,128,323	50,128,323	9,553,100	50,128,323
1960.....	9,592,000	3,541,058	6,050,942	193,227,010	104,828,325	29,432,352	298,137,785	298,137,785	298,137,785	0	11,564	52,300,566	52,300,566	9,592,000	52,300,566
1961.....	9,641,200	3,348,401	6,292,999	192,869,750	97,929,715	29,432,352	310,236,005	310,236,005	310,236,005	0	11,564	54,669,765	54,669,765	9,641,200	54,669,765
1962.....	9,686,200	3,144,850	6,541,350	192,507,780	90,782,566	29,432,352	324,966,725	324,966,725	324,966,725	0	14,076	56,928,805	56,928,805	9,686,200	56,928,805
1963.....	9,722,400	2,723,477	7,040,223	192,302,780	83,538,013	29,432,352	342,144,806	342,144,806	342,144,806	0	135,914	59,690,725	59,690,725	9,722,400	59,690,725
1964.....	9,763,700	2,506,140	7,267,560	192,296,800	76,229,673	29,432,352	362,963,429	362,963,429	362,963,429	0	459,079	66,774,331	66,774,331	9,763,700	66,774,331
1965.....	9,808,500	2,286,890	7,567,310	192,285,540	68,651,103	29,432,352	384,629,157	384,629,157	384,629,157	0	617,487	70,819,863	70,819,863	9,808,500	70,819,863
1966.....	9,897,900	2,050,533	7,847,367	192,323,920	60,831,116	29,432,352	405,446,635	405,446,635	405,446,635	0	752,331	74,707,005	74,707,005	9,897,900	74,707,005
1967.....	9,938,200	1,825,533	8,112,667	192,304,860	52,719,389	29,432,352	427,371,732	427,371,732	427,371,732	0	826,627	78,800,968	78,800,968	9,938,200	78,800,968
1968.....	9,963,600	1,581,582	8,382,018	192,304,860	44,337,371	29,432,352	449,181,335	449,181,335	449,181,335	0	1,026,452	82,873,365	82,873,365	9,963,600	82,873,365
1969.....	10,004,100	1,330,121	8,673,979	192,304,860	35,663,392	29,432,352	473,771,700	473,771,700	473,771,700	0	1,267,705	87,465,000	87,465,000	10,004,100	87,465,000
1970.....	10,033,500	1,090,902	8,963,598	192,304,860	26,699,794	29,432,352	473,771,700	473,771,700	473,771,700	0	1,339,551	87,465,000	87,465,000	10,033,500	87,465,000
1971.....	10,035,400	524,034	9,511,366	192,304,860	17,467,788	29,432,352	473,771,700	473,771,700	473,771,700	0	1,484,497	87,465,000	87,465,000	10,035,400	87,465,000
1972.....	10,035,400	238,093	9,795,422	192,304,860	7,956,422	29,432,352	473,771,700	473,771,700	473,771,700	0	1,545,570	87,465,000	87,465,000	10,035,400	87,465,000
1973.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	1,694,005	87,465,000	87,465,000	10,035,400	87,465,000
1974.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	1,767,165	87,465,000	87,465,000	10,035,400	87,465,000
1975.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	1,841,593	87,465,000	87,465,000	10,035,400	87,465,000
1976.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	1,916,010	87,465,000	87,465,000	10,035,400	87,465,000
1977.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	1,990,439	87,465,000	87,465,000	10,035,400	87,465,000
1978.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,064,865	87,465,000	87,465,000	10,035,400	87,465,000
1979.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,139,291	87,465,000	87,465,000	10,035,400	87,465,000
1980.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,213,715	87,465,000	87,465,000	10,035,400	87,465,000
1981.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,288,141	87,465,000	87,465,000	10,035,400	87,465,000
1982.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,362,565	87,465,000	87,465,000	10,035,400	87,465,000
1983.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,436,990	87,465,000	87,465,000	10,035,400	87,465,000
1984.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,511,415	87,465,000	87,465,000	10,035,400	87,465,000
1985.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,585,840	87,465,000	87,465,000	10,035,400	87,465,000
1986.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,660,265	87,465,000	87,465,000	10,035,400	87,465,000
1987.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,734,690	87,465,000	87,465,000	10,035,400	87,465,000
1988.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,809,115	87,465,000	87,465,000	10,035,400	87,465,000
1989.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,883,540	87,465,000	87,465,000	10,035,400	87,465,000
1990.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	2,957,965	87,465,000	87,465,000	10,035,400	87,465,000
1991.....	10,035,400	0	0	192,304,860	0	29,432,352	473,771,700	473,771,700	473,771,700	0	3,032,390	87,465,000	87,465,000	10,035,400	87,465,000
1992.....	10,035,400	0	0	192,304,860	0										

CRESCENT LAKE DAM PROJECT

BEND, OREG.

Reconstruction of Crescent Lake Dam and appurtenant outlet works to Crescent Lake, in Deschutes County, Oreg., was authorized by the 1955 Interior Department Appropriation Act (68 Stat. 361) on July 1, 1954.

The project works to be replaced under this program consist of a dam and appurtenant works with intake openings screened for protection of fish. These works will provide the project with a reservoir storage capacity of 86,000 acre-feet which, when added to other existing water supplies, will insure a dependable total supply to about 6,650 irrigable acres in the Deschutes County municipal improvement district, which was originally organized as a State project under the Carey Act in 1902.

The total construction cost of the work is estimated at \$297,000. Costs of previous surveys and investigations in the amount of \$23,000 increases the total reimbursable cost allocated to irrigation to \$320,000, and is established as the district's construction charge obligation.

The United States will operate Crescent Lake Dam during the construction period. On com-

pletion of construction, the district will operate and maintain the entire project works.

CONTRACT

1954, September 20: Contract 14-06-100-566 with the Deschutes County municipal improvement district to pay to the United States the actual cost of reconstruction in an amount not to exceed \$320,000.

Payout schedule.—The district is to repay its construction charge obligation in 40 equal annual installments, the first payment being due on December 31, 1957, or December 31 of the first full calendar year following the year in which the Secretary provides a notice. However, should the district so desire, the annual installments may be paid in two equal amounts, one to be paid on or before December 31 of the year in which the payment accrues, and one to be paid on June 30 of the following year.

The summary of status of repayment contract:

Total value of contracted repayment.....	\$320,000
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

DALTON GARDENS PROJECT

COEUR D'ALENE, IDAHO

Rehabilitation of project works on the Dalton Gardens project in Kootenai County, Idaho, was authorized on July 31, 1953, by the Interior Department Appropriations Act (67 Stat. 261, 266).

The rehabilitation program will provide the project with an adequate water supply at sufficient pressure for sprinkler irrigation of 944 acres, comprised principally of part-time farm and suburban residence units.

The project features include two centrifugal pumps having a capacity of 3,000 gallons per minute, 800 feet of steel intake pipe, a steel storage tank with 150,000-gallon capacity, approximately 2,950 feet of steel supply lines, and a distribution system of about 11 miles of steel pipe.

Costs of rehabilitating the project works through June 30, 1957, equaled \$258,660, against the estimated total of \$270,200, all of which is allocated to irrigation and is reimbursable.

The Dalton Gardens irrigation district operates the project works.

Repayment contract.—The Dalton Gardens irri-

gation district signed a repayment contract dated April 26, 1954, to pay to the United States the actual cost of the repair and rehabilitation of their project works in an amount not to exceed \$270,200. This amount includes \$2,200 for actual costs of past surveys and investigations, and is established as a part of the district's construction charge obligation.

A 2-year development period has been established, starting January 1, 1956. The first annual construction installment is due on or before December 31, 1958.

CONTRACT

1954, April 26: Contract 14-06-100-417 with the Dalton Gardens irrigation district to repay \$270,200, the estimated cost of rehabilitating project facilities, in 40 equal annual installments or, at the district's option, in 80 equal semiannual installments.

The summary of status of repayment contract:

Total value of contracted repayment.....	\$270, 200
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

DESCHUTES PROJECT—North Unit

BEND, OREG.

A finding of feasibility for the Deschutes project was signed by the Secretary of the Interior on September 24, 1937, and approved by the President on November 1, 1937, under provisions of the Fact Finders' Act of December 5, 1924 (43 Stat. 672, 701). Construction of Haystack Dam and equalizing reservoir was authorized by act of Congress on August 10, 1954 (68 Stat. 679).

The primary purpose of the project is to provide storage and distribution facilities for 50,000 acres of new land in the North unit in Jefferson County and to furnish supplemental water to about 52,000 acres in established irrigation districts. Principal features include the Wickiup Dam and Reservoir in Deschutes County, North Unit Main Canal, and lateral system, and one additional unit to the Pacific Power & Light Co.'s Cove power plant to provide replacement power for that lost in its Bend powerplant during the storage season as a result of storage of winter flows in Wickiup and Crane Prairie Reservoirs. In connection with the construction of the project, it was necessary to reconstruct the Crane Prairie Reservoir in Deschutes County.

The total estimated cost, including \$151,786 for funded charges, is \$14,288,000. The entire amount is reimbursable except for value of work performed by the Civilian Conservation Corps, Civilian Public Service, and Selective Service System. This work amounts to \$1,617,758.¹

Construction of the North unit of the Deschutes project will be finished upon completion of Haystack Equalizing Reservoir.

North unit facilities have been operated and maintained by the North unit irrigation district since January 1, 1955.

Repayment contracts.—An amendatory contract approved by act of August 10, 1954 (68 Stat. 679), has been entered into with the North unit irrigation district to pay the reimbursable construction costs of the North unit up to \$12,130,000. Repayment is scheduled over a 78-year period.

The Central Oregon irrigation district has agreed to pay \$400,000 in 78 semi-annual installments, or approximately \$10 per irrigable acre for the reconstruction of Crane Prairie Reservoir.

The Arnold project and Crook County Improvement District No. 1 are obligated by interdistrict agreement to repay Central Oregon irrigation district for apportioned parts of Crane Prairie Reservoir reconstruction costs.

The Pacific Power & Light Co. has agreed to pay \$67,938 for work performed by the Bureau in improving its facilities. Payments began in 1942 and will be completed in 1985. County of Jefferson is obligated to repay \$123,667 for the county's share of the cost of construction of road crossings. Payments began in 1952 and will be completed in 1982. The city of Prineville has completed payment of \$10,679 for a concrete siphon built by the Bureau.

The city of Culver made a lump sum payment of \$876. The city of Madras will repay \$24,000 in 40 annual installments. Payments began in 1955 and will be completed in 1994.

Repayment of Haystack Equalizing Reservoir began in fiscal year 1957 and will be completed in about 78 years.

CONTRACTS

1938, January 4: Contract with North unit irrigation district (formerly Jefferson Water conservancy district) for construction of North unit of project at estimated cost of \$8,000,000, payable in 78 equal semiannual installments. Secretary may provide for smaller payments during early years and larger installments in later years.

¹ The Acting Attorney General's decision of September 7, 1937, holds that a Federal Reclamation project may be constructed partly by the use of money from the Reclamation fund and partly with nonreimbursable funds from other sources.

1939, August 5: Contract Ilr-1143 with Central Oregon irrigation district for reconstruction of Crane Prairie Reservoir at estimated cost of \$400,000, payable in 78 equal semiannual installments.

1939, November 21: Contract with Pacific Power & Light Co. for \$67,938, payable in 40 equal annual installments.

1941, October 1: County of Jefferson Contract I56r-77 for \$123,666.78.

1942, June 2: Contract I56r-85 with city of Prineville for concrete siphon, payable in 10 equal annual installments.

1945, September 5: Contract with North unit irrigation district. Increased maximum obligation of the district to \$9,500,000.

1949, October 26: Contract with North unit irrigation district. Increased maximum obligation of the district to \$11,050,000, to be repaid in 40 years.

1952, May 6: City of Culver, Contract I74r-1756 for \$876.06.

1954, February 13: Contract 14-06-W-71 with North unit irrigation district. Increased maximum obligation of the district to \$12,130,000, to be repaid in approximately 78 years. Annual assessments will begin in 1957 and will be varied by the "normal and percentage" plan plus parity.

1954, April 8: City of Madras, Contract 14-06-100-357 for \$24,000.

The allocation of costs:

Total estimated project cost..... \$14,288,000

Reimbursable:

Water users (including cities and counties)..... 11,919,207

Pacific Power & Light Co..... 67,938

Sale of surplus energy during irrigation season..... 447,366

Contributions..... 140,583

Miscellaneous revenues..... 95,148

Subtotal..... 12,670,242

Nonreimbursable (SSS, CCC, and CPS work)..... 1,617,758

Total..... 14,288,000

The summary of status of repayment contracts:

Total value of contracted repayment..... \$12,757,160

Total matured charges..... 296,530

Total matured charges repaid..... 296,530

Total matured charges unpaid..... 0

Construction repayment history—Central Oregon irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1939.....	\$400,000							
1940.....	400,000							
1941.....	400,000							
1942.....	400,000							
1943.....	400,000	\$10,256		\$10,256	\$10,256		\$10,256	\$10,256
1944.....	400,000	10,257		10,257	10,257		10,257	20,513
1945.....	400,000	10,256		10,256	10,256		10,256	30,769
1946.....	400,000	10,257		10,257	10,257		10,257	41,026
1947.....	400,000	10,256		10,256	10,256		10,256	51,282
1948.....	400,000	10,256		10,256	10,256		10,256	61,538
1949.....	400,000	10,257		10,257	10,257		10,257	71,795
1950.....	400,000	10,256		10,256	10,256		10,256	82,051
1951.....	400,000	10,257		10,257	10,257		10,257	92,308
1952.....	400,000	10,256		10,256	10,256		10,256	102,564
1953.....	400,000	10,256		10,256	10,256		10,256	112,820
1954.....	400,000	10,257		10,257	10,257		10,257	123,077
1955.....	400,000	10,256		10,256	10,256		10,256	133,333
1956.....	400,000	10,257		10,257	10,257		10,257	143,590
1957.....	400,000	10,256		10,256	10,256		10,256	153,846
Total.....		153,846		153,846	153,846		153,846	
Collected.....				153,846				
Uncollected.....				0				

Construction repayment history—Pacific Power & Light Co.

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1941	\$23, 760							
1942	23, 760	\$594		\$594	\$594		\$594	\$594
1943	23, 760	594		594	594		594	1, 188
1944	23, 760	594		594	594		594	1, 782
1945	23, 760	594		594	594		594	2, 376
1946	23, 760	594		594	594		594	2, 970
1947	39, 362	1, 374		1, 374	1, 374		1, 374	4, 344
1948	67, 938	1, 785		1, 785	1, 785		1, 785	6, 129
1949	67, 938	1, 699		1, 699	1, 699		1, 699	7, 828
1950	67, 938	1, 698		1, 698	1, 698		1, 698	9, 526
1951	67, 938	1, 699		1, 699	1, 699		1, 699	11, 225
1952	67, 938	1, 698		1, 698	1, 698		1, 698	12, 923
1953	67, 938	1, 698		1, 698	1, 698		1, 698	14, 621
1954	67, 938	1, 699		1, 699	1, 699		1, 699	16, 320
1955	67, 938	1, 698		1, 698	1, 698		1, 698	18, 018
1956	67, 938	1, 699		1, 699	1, 699		1, 699	19, 717
1957	67, 938	1, 698		1, 698	1, 698		1, 698	21, 415
Total		21, 415		21, 415	21, 415		21, 415	
Collected				21, 415				
Uncollected				0				

Construction repayment history—City of Prineville

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1946	\$10, 679							
1947	10, 679	\$1, 068		\$1, 068	\$1, 068		\$1, 068	\$1, 068
1948	10, 679	1, 068		1, 068	1, 068		1, 068	2, 136
1949	10, 679	1, 068		1, 068	1, 068		1, 068	3, 204
1950	10, 679	1, 067		1, 067	1, 067		1, 067	4, 271
1951	10, 679	1, 068		1, 068	1, 068		1, 068	5, 339
1952	10, 679	1, 068		1, 068	1, 068		1, 068	6, 407
1953	10, 679	1, 068		1, 068	1, 068		1, 068	7, 475
1954	10, 679	1, 068		1, 068	1, 068		1, 068	8, 543
1955	10, 679	1, 068		1, 068	1, 068		1, 068	9, 611
1956	10, 679	1, 068		1, 068	1, 068		1, 068	10, 679
Total		10, 679		10, 679	10, 679		10, 679	
Collected				10, 679				
Uncollected				0				

Construction repayment history—County of Jefferson

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1952	\$123, 667	\$24, 000		\$24, 000	\$24, 000		\$24, 000	\$24, 000
1953	123, 667	8, 000		8, 000	8, 000		8, 000	32, 000
1954	123, 667	8, 000		8, 000	8, 000		8, 000	40, 000
1955	123, 667	3, 000		3, 000	3, 000		3, 000	43, 000
1956	123, 667	3, 000		3, 000	3, 000		3, 000	46, 000
1957	123, 667	3, 000		3, 000	3, 000		3, 000	49, 000
Total		49, 000		49, 000	49, 000		49, 000	
Collected				49, 000				
Uncollected				0				

Construction repayment history—City of Madras

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955	\$24, 000	\$600		\$600	\$600		\$600	\$600
1956	24, 000	600		600	600		600	1, 200
1957	24, 000	600		600	600		600	1, 800
Total		1, 800		1, 800	1, 800		1, 800	
Collected				1, 800				
Uncollected				0				

Construction repayment history—North Unit irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1957	\$12, 130, 000	\$58, 914		\$58, 914	\$58, 914		\$58, 914	\$58, 914
Total		58, 914		58, 914	58, 914		58, 914	
Collected				58, 914				
Uncollected				0				

EDEN PROJECT

FARSON, WYO.

The Eden project in Sweetwater County, Wyo., was approved for construction by the President on September 18, 1940, under the water conservation and utility provision of the Interior Department Appropriation Act of 1940 (53 Stat. 685, May 10, 1939). It was reauthorized by act of Congress on June 28, 1949 (63 Stat. 277).

The project will provide a full water supply for the irrigation of 20,000 acres of arid land, including 9,000 acres of presently inadequately irrigated land in the vicinity of Eden and Farson, Wyo. Project features include Big Sandy Dam and Reservoir, Prospect Diversion Dam, Prospect Canal, Means Canal, Eden Canal rehabilitation and enlargement, lateral system, and drainage system.

The total estimated cost of the project features is \$8,073,822 allocated to irrigation. A contract has been executed with the Eden Valley irrigation and drainage district which is consistent with the reauthorization act authorizing completion of the Eden project. This act provides that not less than \$1,500,000 of construction costs of the irrigation features shall be reimbursable by the water users in not to exceed 60 years. The act further provides "that construction costs of the irrigation features of the project which are not hereby made reimbursable by the water users shall be set aside in a special account against which net revenues derived from sale of power generated at the hydroelectric

plants of the Colorado River storage project in the upper basin shall be charged when such plants are constructed."

The features serving presently irrigated lands are being operated by the Bureau of Reclamation with funds provided by the water users. It is now anticipated that on or before June 1, 1957, notice will be given the district of the beginning of a 4-year development period for block 1 to commence January 1, 1958. Additional blocks of newly irrigated lands will be given a 7-year development period.

Repayment contracts.—The Eden Valley irrigation and drainage district repayment contract (Ilr-1579) was signed June 8, 1950. The contract provides that, of the construction cost of the irrigation features of the project, not less than \$1,500,000 for the project of 20,000 irrigable acres, or a proportionate part thereof, based on the actual irrigable area as determined by the Secretary of the Interior, shall be reimbursable by the water users.

CONTRACT

1950, June 8: Contract Ilr-1579 with Eden Valley Irrigation and Drainage District for reimbursable construction costs of irrigation features for lands in Wyoming. Repayment in not to exceed 60 years in successive, annual installments of the amount allocated by the Secretary to each irrigation block, and to commence with the calendar year next succeeding the termination

of the development period therefor. One-half of the installment due and payable on or before December 31 of each year, and the other one-half due and payable on or before May 31 of the following year. Contract provides a variable repayment plan based on price indices under which the annual installments shall not be more than 200 percent nor less than 15 percent of the base charge.

The allocation of costs:

Estimated cost of project features.....	\$8, 073, 822
Add: Other charges.....	76, 694
	<hr/>
Subtotal.....	8, 150, 516
Less: Nonreimbursable costs.....	17, 988
	<hr/>
Total costs.....	<u>8, 132, 528</u>

Reimbursable repayment:

From irrigation water users (basis 20,000 irrigable acres).....	\$1, 500, 000
From proposed Colorado River Storage project power revenues.....	6, 631, 743
Miscellaneous revenues.....	785
	<hr/>
Total.....	8, 132, 528

Payout schedule.—Payout of the reimbursable costs is scheduled for completion in 60 years following the respective development periods by annual installments of \$1.25 per irrigable acre.

The summary of status of repayment contract:

Total value of contracted repayment.....	\$1, 500, 000
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

EKLUTNA PROJECT

ANCHORAGE, ALASKA

Construction of the Eklutna project was authorized by act of Congress, July 31, 1950 (64 Stat. 382), to supply hydroelectric power to the cities of Anchorage and Palmer and outlying districts to supplement existing power sources.

Principal features of the project included the strengthening and repairing of an existing dam at the lake outlet, drilling and lining a tunnel 23,800 feet long and 9 feet in diameter to tap Eklutna Lake, construction of an underground steel penstock 1,375 feet long, erection of a powerplant equipped with two 15,000-kilowatt generators, and construction of 32 miles of 115-kilovolt transmission line terminating in a 30,000-kilovolt-ampere substation at Anchorage and 9 miles of 115-kilovolt transmission line terminating in a 5,000-kilovolt-amperes substation at Palmer.

Total project costs as of June 30, 1957 were as follows:

Production plant.....	\$30, 112, 406
Transmission plant.....	2, 222, 696

Total, electric plant in service.....	32, 335, 102
---------------------------------------	--------------

82

Construction work in progress or authorized with funds available.....	\$331, 537
--	------------

Total project cost.....	32, 666, 639
-------------------------	--------------

Estimated final cost is \$32,759,692. All costs are allocated to power and are reimbursable. Repayment will be within 50 years or less by sale of power.

All project works are operated by the Bureau of Reclamation and are financed directly with Federal funds by an annual congressional appropriation.

Repayment contracts.—The full 30,000-kilowatt firm capacity of the project has been contracted for as follows:

	<i>Date</i>	<i>Kilowatts</i>
City of Anchorage.....	Nov. 23, 1953	16, 000
Chugach Electric Association (REA).....	Dec. 7, 1954	9, 000
Matanuska Electric Association, Inc. (REA).....	Nov. 29, 1954	5, 000

Repayment is made by monthly charges to the contractors for the project energy and capacity they use, with a minimum annual capacity charge guaranteeing a minimum annual revenue.

Power system payout study

Fiscal year	Net operating revenues	Income deductions			Plant in service at end of year		Earned surplus (cumulative)
		Interest, 2.5 percent	Compensation for Little Eklutna facilities	Principal	Commercial electric plant	Balance to be repaid	
1955-----	\$285, 089		\$28, 402	\$256, 687	\$30, 521, 183	\$30, 264, 496	-----
1956-----	917, 826	\$756, 612	71, 718	89, 496	30, 526, 563	30, 180, 380	0
1957-----	1, 083, 998	754, 509	70, 094	259, 395	30, 493, 342	29, 887, 764	0
1958-----	1, 237, 300	747, 194	76, 740	413, 366	30, 824, 879	29, 805, 935	0
1959-----	1, 236, 800	745, 145	76, 740	414, 915	30, 824, 879	29, 391, 020	0
1960-----	1, 236, 800	734, 776	76, 740	425, 284	30, 824, 879	28, 965, 736	0
1961-----	1, 236, 800	724, 143	76, 740	435, 917	30, 824, 879	28, 529, 891	0
1962-----	1, 236, 800	713, 245	76, 740	446, 815	30, 824, 879	28, 083, 004	0
1963-----	1, 236, 800	702, 075	76, 740	457, 985	30, 824, 879	27, 625, 019	0
1964-----	1, 236, 800	690, 625	76, 740	469, 435	30, 824, 879	27, 155, 584	0
1965-----	1, 236, 800	678, 890	76, 740	481, 170	30, 824, 879	26, 674, 414	0
1966-----	1, 236, 800	666, 860	76, 740	493, 200	30, 824, 879	26, 181, 214	0
1967-----	1, 236, 800	654, 530	76, 740	505, 530	30, 824, 879	25, 675, 684	0
1968-----	1, 236, 800	641, 892	76, 740	518, 168	30, 824, 879	25, 157, 516	0
1969-----	1, 236, 800	628, 938	76, 740	531, 122	30, 824, 879	24, 626, 394	0
1970-----	1, 236, 800	615, 660	76, 740	544, 400	30, 824, 879	24, 081, 994	0
1971-----	1, 236, 800	602, 050	76, 740	558, 010	30, 824, 879	23, 523, 984	0
1972-----	1, 236, 800	588, 100	76, 740	571, 960	30, 824, 879	22, 952, 024	0
1973-----	1, 236, 800	573, 801	76, 740	586, 259	30, 824, 879	22, 365, 765	0
1974-----	1, 236, 800	559, 144	76, 740	600, 916	30, 824, 879	21, 764, 849	0
1975-----	1, 236, 800	544, 121	76, 740	615, 939	30, 824, 879	21, 148, 910	0
1976-----	1, 236, 800	528, 723	76, 740	631, 337	30, 824, 879	20, 517, 573	0
1977-----	1, 236, 800	512, 939	76, 740	647, 121	30, 824, 879	19, 870, 452	0
1978-----	1, 236, 800	496, 761	76, 740	663, 299	30, 824, 879	19, 207, 153	0
1979-----	1, 236, 800	480, 179	60, 006	696, 615	30, 824, 879	18, 510, 538	0
1980-----	1, 236, 800	462, 763	0	774, 037	30, 824, 879	17, 736, 501	0
1981-----	1, 236, 800	443, 412	0	793, 388	30, 824, 879	16, 943, 113	0
1982-----	1, 236, 800	423, 578	0	813, 222	30, 824, 879	16, 129, 891	0
1983-----	1, 236, 800	403, 247	0	833, 553	30, 824, 879	15, 296, 338	0
1984-----	1, 236, 800	382, 408	0	854, 392	30, 824, 879	14, 441, 946	0
1985-----	1, 236, 800	361, 049	0	875, 751	30, 824, 879	13, 566, 195	0
1986-----	1, 236, 800	339, 155	0	897, 645	30, 824, 879	12, 668, 550	0
1987-----	1, 236, 800	316, 714	0	920, 086	30, 824, 879	11, 748, 464	0
1988-----	1, 236, 800	293, 712	0	943, 088	30, 824, 879	10, 805, 376	0
1989-----	1, 236, 800	270, 134	0	966, 666	30, 824, 879	9, 838, 710	0
1990-----	1, 236, 800	245, 968	0	990, 832	30, 824, 879	8, 847, 878	0
1991-----	1, 236, 800	221, 197	0	1, 015, 603	30, 824, 879	7, 832, 275	0
1992-----	1, 236, 800	195, 807	0	1, 040, 993	30, 824, 879	6, 791, 282	0
1993-----	1, 236, 800	169, 782	0	1, 067, 018	30, 824, 879	5, 724, 264	0
1994-----	1, 236, 800	143, 107	0	1, 093, 693	30, 824, 879	4, 630, 571	0
1995-----	1, 236, 800	115, 764	0	1, 121, 036	30, 824, 879	3, 509, 535	0
1996-----	1, 236, 800	87, 738	0	1, 149, 062	30, 824, 879	2, 360, 473	0
1997-----	1, 236, 800	59, 012	0	1, 177, 788	30, 824, 879	1, 182, 685	0
1998-----	1, 236, 800	29, 567	0	1, 182, 685	30, 824, 879	0	\$24, 548
1999-----	1, 236, 800	0	0	0	30, 824, 879	0	1, 261, 348
2000-----	1, 236, 800	0	0	0	30, 824, 879	0	2, 498, 148
2001-----	1, 236, 800	0	0	0	30, 824, 879	0	3, 734, 948
2002-----	1, 236, 800	0	0	0	30, 824, 879	0	4, 971, 748
2003-----	1, 236, 800	0	0	0	30, 824, 879	0	6, 208, 548
2004-----	1, 236, 800	0	0	0	30, 824, 879	0	7, 445, 348
2005-----	1, 236, 800	0	0	0	30, 824, 879	0	8, 682, 148
Total-----	61, 653, 813	20, 305, 026	1, 841, 760	30, 824, 879	30, 824, 879	0	8, 682, 148

FALCON PROJECT

TEXAS

The Falcon Dam is the first of the major international storage dams which the Governments of the United States and Mexico agreed in the 1944 treaty to construct, operate and maintain jointly through the International Boundary and Water Commission.

The completion of the Falcon Dam in November 1953 created an international reservoir having a total capacity of 4,085,000 acre-feet for conservation and control of floods on the Rio Grande and providing hydroelectric power generating potentialities. The hydroelectric plant at the dam, authorized insofar as the United States is concerned by the act of October 5, 1949 (63 Stat. 701), was virtually completed and placed in operation in October 1954.

The Falcon Dam, on the Rio Grande about 130 miles upstream from Brownsville, Tex., was built by the International Boundary and Water Commission of the United States and Mexico. The 5-mile long, earth- and rockfill Falcon Dam has two powerplants—one on the Mexican side of the river and the other in Texas. The United States' powerhouse, like its Mexican counterpart, has three 10,500-kilowatt generators. Each powerplant contains three Francis-type turbines rated at 14,750 horsepower each at 100-foot head. Each plant has a centralized control room with separate and independent facilities, and is interconnected for transfer of energy from one to the other.

The joint operation and maintenance of the dam, reservoir, and powerplants by International Boundary and Water Commission are accomplished through overall supervision of the Commission and close coordination at the field level between superintendents of the respective sections of the Commission. The cost of operation and maintenance of Falcon Dam, pursuant to the terms of the 1944 treaty, is prorated between the

two Governments in proportion to the conservation capacity allotted to each country in the reservoir; that is, 58.6 percent to the United States and 41.4 percent to Mexico. The cost of operation and maintenance of the hydroelectric plants is, pursuant to the treaty, divided equally between the two governments, and the energy generated is assigned to each country in like proportion. The division between the two sections of the cost of operation and maintenance is accomplished as it was in the construction of the dam and powerplant, by allocation to each section of the Commission of a part of the work items in such a manner that the cost of the work performed by each Government will conform to the above-stated percentage. The United States' share of the energy generated at the dam and not required in the operation of the United States' portion of the project is delivered to the Secretary of the Interior for transmission and disposition pursuant to the terms of the act of June 18, 1954 (68 Stat. 255).

Repayment.—In House hearings in connection with act of October 5, 1949 (63 Stat. 701), the Department of State offered testimony as follows: Total cost of Falcon Dam, \$33.4 million; United States' share of this (58.6 percent), \$19.6 million; estimated cost of powerplant at the Falcon Dam, \$12.6 million; United States share (50 percent), \$6.3 million; United States to obtain 50 percent of the power. Annual cost to the United States for the powerplant would be \$423,788. Annual revenue is \$437,000, which is based on an estimate of 4 mills for firm power and 1.5 mills for secondary power. The powerplant will pay itself out in the 45th year of operation, and in the remaining 55 years of the economic life of the dam the powerplant would pay for 47 percent of the dam.

Power marketing agent.—Pursuant to the act of

Congress approved June 18, 1954 (68 Stat. 255), and to the Treaty with Mexico executed February 3, 1944, and proclaimed November 27, 1945 (59 Stat. 1219), between the Bureau of Reclamation of the Department of the Interior, and the United Section, International Boundary and Water Commission, Department of State, the Bureau has

been designated marketing agent in disposing of power and energy from the Falcon project.

The current major power contract in effect at Falcon project is contract No. 14-06-500-148 between the United States and Central Power & Light Co. It is an emergency contract in effect until midnight April 30, 1957.

Payout study

Fiscal year	Operating revenue, total	Operating revenue deductions				Net revenues
		All other electric O & M expenses	Provision for replacements	Marketing expenses	Total	
1955-----	\$249, 105	\$97, 368	0	\$10, 000	\$107, 368	\$141, 737
1956-----	199, 410	94, 504	\$15, 900	15, 000	125, 404	74, 006
1957-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1958-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1959-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1960-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1961-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1962-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1963-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1964-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1965-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1966-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1967-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1968-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1969-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1970-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1971-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1972-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1973-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1974-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1975-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1976-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1977-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1978-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1979-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1980-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1981-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1982-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1983-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1984-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1985-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1986-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1987-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1988-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1989-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1990-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1991-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1992-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1993-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1994-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1995-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1996-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1997-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
1998-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
1999-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
2000-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
2001-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
2002-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
2003-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
2004-----	345, 000	108, 400	15, 900	4, 500	128, 800	216, 200
2005-----	495, 000	108, 400	15, 900	4, 500	128, 800	366, 200
Total-----	21, 103, 515	5, 503, 472	795, 000	245, 500	6, 543, 972	14, 559, 543

NOTE: This study is based upon arrangements between the United States and Mexican Section, International Boundary and Water Commission, involving water exchanges to provide peaking capacity. The study reflects an estimated default in peaking capacity in every other year beginning in 1958.

FORT PECK PROJECT

FORT PECK, MONT.

The Fort Peck Project Act of May 18, 1938 (52 Stat. 403), authorized the completion, maintenance, and operation of the Fort Peck project. The Secretary of War was made responsible for completion, maintenance, and operation of the dam and powerplant. The Bureau of Reclamation is responsible for construction, maintenance, and operation of facilities for transmitting and marketing the electric energy generated by the powerplant. Under the act, schedules of rates and charges for electric energy are approved by the Federal Power Commission.

Sale of power began in fiscal year 1944.

Principal features of the project will include about 130 miles of 230-kilovolt transmission lines, 290 miles of 161-kilovolt transmission lines, and 540 miles of 115-kilovolt transmission lines. Numerous lower voltage transmission lines and tap lines are also included in the project. Power is furnished to customers directly from substations on these lines or by wheeling agreements over the lines of interconnecting power systems. The aggregate installed transformer capacity in the major substations will ultimately be about 300,000 kilovolt-amperes.

The principal features of the project in operation as of July 1, 1957, are 290.95 miles of 161-kilovolt transmission lines, 541.26 miles of 115-kilovolt

transmission lines, 19.61 miles of 69-kilovolt transmission lines, 13.79 miles of 57-kilovolt transmission lines, 48.84 miles of 34.5-kilovolt transmission lines, and 5.37 miles of 2.3-kilovolt transmission lines, and 30 substations having a combined capacity of 257,426 kilovolt-amperes.

The total estimated construction cost for power transmission facilities for the project is \$24,300,000. Under authority of the act of May 18, 1938, the entire cost of the powerplant and transmission facilities will be repaid from power revenues. These costs and the revenues associated with the project have been consolidated with those of the Missouri River Basin project for electric rate determination and repayment purposes. (See p. 169.)

All receipts from the sale and transmission of electric energy are classified as revolving funds and are immediately available for allotment and expenditure for operation and maintenance. Transfer of revenues in excess of an operation and maintenance working fund of \$500,000 is made in June of each year to the Treasury of the United States for credit to miscellaneous receipts.

The transmission facilities of the project are operated by the Bureau of Reclamation and the costs of operation and maintenance are financed directly from the revolving fund.

FORT SUMNER PROJECT

FORT SUMNER, N. MEX.

The Fort Sumner project in De Baca County of New Mexico was authorized by act approved July 29, 1949 (63 Stat. 483).

The original project was developed by private interests to irrigate approximately 6,500 acres of land. By 1949 floods had caused considerable damage to the diversion dam on the Pecos River, and the Fort Sumner irrigation district contracted with the Bureau of Reclamation to construct a new diversion dam and rehabilitate the existing irrigation system. Facilities of the project on which the Bureau of Reclamation performed construction work include Fort Sumner diversion dam, main canal, pumping plant, high line canal, drains and lateral system.

Total estimated cost of the project is \$2,433,342 and the cost to June 30, 1957, amounted to \$2,432,920. The entire amount is allocated to irrigation. The water users contributed land for

a value of \$175 and contracted to repay the balance of the total project costs.

Construction was completed on June 30, 1952, except for minor work, and repayment started in 1954.

The project is operated by the Fort Sumner irrigation district.

Repayment contract.—The repayment contract was signed on September 14, 1949, in the amount of \$2,464,000 and provides for repayment in 80 equal annual installments unless the district elects to make payments under the variable formula. The repayment obligation was adjusted to actual costs as of June 30, 1956, thus making the value of the repayment contract \$2,432,166.55.

CONTRACT

1948, November 5: Contract Ilr-1524 with Fort Sumner irrigation district for \$2,464,000, repayable in 80 equal annual installments unless district makes payments under the variable formula.

Construction repayment history—Fort Sumner irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1954.....	\$2, 432, 167	\$30, 402	-----	\$30, 402	\$30, 402	-----	\$30, 402	\$30, 402
1955.....	2, 432, 167	30, 402	-----	30, 402	30, 402	-----	30, 402	60, 804
1956.....	2, 432, 167	30, 402	-----	30, 402	30, 402	-----	30, 402	91, 206
1957.....	2, 432, 167	30, 402	-----	30, 402	30, 402	-----	30, 402	121, 608
Total.....	-----	121, 608	-----	121, 608	121, 608	-----	121, 608	-----
Collected.....	-----	-----	-----	121, 608	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	0	-----	-----	-----	-----

FRENCHTOWN PROJECT

MISSOULA, MONT.

CONTRACTS AND PUBLIC NOTICE

The President authorized construction of the Frenchtown project in Missoula County, Mont., by approval of a finding of feasibility on September 21, 1935, pursuant to section 4 of the act of June 25, 1910 (36 Stat. 836), and subsection B of section 4 of the act of December 5, 1924 (43 Stat. 702).

The project was constructed to irrigate nearly 5,000 acres between Grass Valley and Huson, near Missoula, Mont. Construction of the canal was started October 3, 1935. Work on the diversion dam began April 9, 1936. Some water was available in 1936.

Project facilities, all constructed by the United States, consist of an earth and rockfill diversion dam on a side channel of the Clark Fork (Missoula) River, a gravity flow distribution system, including 17 miles of main canal, 10 laterals, and necessary water-control structures.

The cost of constructing the project was \$279,321. In addition, there are operation and maintenance costs of \$15,922 and interest funded in the amount of \$2,039, making a total project cost of \$297,282.

Project works were operated by Government forces until January 1, 1939, and since then, by the district.

Repayment contracts.—Water users organized the Frenchtown irrigation district on November 19, 1934, and entered into a repayment contract with the United States on July 11, 1935. Several amendatory contracts were concluded, primarily to adjust the maximum construction obligation. The most recent contract, concluded on September 6, 1951, was negotiated under authority of section 7 of the Reclamation Project Act of 1939 (53 Stat. 1187). This contract was approved by the Congress under the act of June 23, 1952 (66 Stat. 151), and signed by the Secretary on July 18, 1952.

- 1935, July 11: Contract with Frenchtown irrigation district. Maximum construction charge not to exceed \$180,000, payable in 80 equal semiannual installments.
- 1936, June 26: Contract with Frenchtown irrigation district. Maximum construction charge not to exceed \$240,000, payable in 40 semiannual installments of \$2,250 and the balance in 40 equal semiannual installments.
- 1937, April 7: Contract with Frenchtown irrigation district. Maximum construction charge not to exceed \$260,000, payable in 40 semiannual installments at \$2,250 and 40 semiannual installments at \$4,250.
- 1938, January 10: Contract with Frenchtown irrigation district. Maximum construction charge not to exceed \$295,000, payable in 78 semiannual installments at graduated rates varying from \$625 for the first 8 payments to \$5,375 for payments 39 through 78.
- 1949, February 1: Contract with Frenchtown irrigation district. Authorized United States to reimburse the district for not to exceed \$3,000 for repair of damage caused by the 1948 flood. This money was nonreimbursable.
- 1951, September 6: Amendatory Contract Ilr-813 with Frenchtown irrigation district, effective July 18, 1952, providing for repayment in about 42 years. Fixed annual assessment may be replaced by variable payments by application of specified normal and percentage plan plus parity at the option of the district.
- 1953, January 8: Notice to Frenchtown irrigation district advising of actual contract value and obligation of district at that date.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$297, 282
Total matured charges.....	68, 226
Total matured charges repaid.....	68, 226
Total matured charges unpaid.....	0

The cost and repayment allocations:

Total project cost.....	\$297, 282
Repayment of reimbursable cost from irrigation water users.....	297, 282

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1936	\$180,000							
1937	260,000							
1938	295,000							
1939	295,000							
1940	296,439	\$1,250		\$1,250	\$1,250		\$1,250	\$1,250
1941	296,439	2,206		2,206	1,581		1,581	2,831
1942	296,439	1,394		1,394	769	\$625	1,394	4,225
1943	296,439	1,394		1,394	769	625	1,394	5,619
1944	296,439	2,644		2,644	1,394	625	2,019	7,638
1945	296,439	4,178		4,178	1,678	1,250	2,928	10,566
1946	296,439	2,644		2,644	1,394		1,394	11,960
1947	279,099	2,644		2,644	1,394		1,394	13,354
1948	279,099	2,644		2,644	2,644		2,644	15,998
1949	279,099	5,144		5,144	5,144		5,144	21,142
1950	279,099	5,144		5,144	5,144		5,144	26,286
1951	279,099	5,000		5,000	5,000		5,000	31,286
1952	¹ 297,282	5,000	² \$5,000	5,000	5,000		5,000	36,286
1953	297,282	5,000		5,000	5,000		5,000	41,286
1954	297,282	6,735		6,735	6,735		6,735	48,021
1955	297,282	6,735		6,735	6,735		6,735	54,756
1956	297,282	6,735		6,735	6,735		6,735	61,491
1957	297,282	6,735		6,735	6,735		6,735	68,226
Total		73,226	- 5,000	68,226	65,101	3,125	68,226	
Collected				68,226				
Uncollected				0				

¹ Obligation is based on amendatory contract approved by Secretary on July 18, 1952. This includes cost of economic study and interest on \$5,000 delinquent under old contract to effective date of this new contract.

² Delinquent accruals under contract dated July 11, 1935, with interest thereon, have been funded with construction obligation.

FRUITGROWERS DAM PROJECT

AUSTIN, COLO.

The construction of Fruitgrowers Dam project in Delta County, Colo., was approved by the President on January 11, 1938, under the provisions of section 4 of the act of June 25, 1910 (36 Stat. 835).

In 1939 the Bureau of Reclamation entered into a contract with the Orchard City irrigation district to reconstruct Fruitgrowers Dam and Reservoir and Dry Creek diversion dam and canal originally built by private irrigators in 1898 to furnish water to 2,600 acres of irrigable land.

The total cost of constructing the project features was \$200,309. The entire amount is repayable in 39 annual installments from 1942 through 1980, under the terms of the repayment contract dated September 7, 1939.

Operation and maintenance of the project features was transferred to the Orchard City irrigation district on March 1, 1940.

CONTRACT

1939, September 7: Contract Ilr-1155 with the Orchard City irrigation district for repayment in 39 annual installments of the entire cost of the project.

1951, April 12: Final cost notice issued to district in amount of \$200,741.

The cost and repayment allocations:

Total project cost	\$200,309
Repayment of reimbursable costs from irrigation water users:	
For irrigation plant investment	200,309
For operation and maintenance funded	432
Subtotal	200,741
Less revenues (water rentals)	2,500
Total repayment obligation	198,241

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			Cumulative total
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	
1940	\$213,000							
1941	213,000							
1942	213,000	\$2,500		\$2,500	\$2,500		\$2,500	\$2,500
1943	213,000	2,500		2,500	2,500		2,500	5,000
1944	213,000	2,500		2,500	2,500		2,500	7,500
1945	213,000	2,500		2,500	2,500		2,500	10,000
1946	213,000	2,500		2,500	2,500		2,500	12,500
1947	213,000	2,500		2,500	2,500		2,500	15,000
1948	213,000	2,500		2,500	2,500		2,500	17,500
1949	213,000	2,500		2,500	2,500		2,500	20,000
1950	213,000	2,500		2,500	2,500		2,500	22,500
1951	198,241	2,500		2,500	2,500		2,500	25,000
1952	198,241	5,974		5,974	5,974		5,974	30,974
1953	198,241	5,974		5,974	5,974		5,974	36,948
1954	198,241	5,974		5,974	5,974		5,974	42,922
1955	198,241	5,974		5,974	5,974		5,974	48,896
1956	198,241	5,974		5,974	5,974		5,974	54,870
1957	198,241	5,973		5,973	5,973		5,973	60,843
Total		60,843		60,843	60,843		60,843	
Collected				60,843				
Uncollected				0				

Summary of status of repayment:

Total value of contracted repayment	\$198,241	Total matured charges repaid	\$60,843
Total matured charges	60,843	Total matured charges unpaid	0

GARDEN CITY PROJECT

GARDEN CITY, KANS.

The Garden City project was authorized for construction in 1905, and irrigation water from pumping units was available in 1908 and 1909. The cost of operation and maintenance proved too high to irrigate crops in large tracts. Furthermore, sufficient rainfall to mature fair crops lessened the desire of the landowners for an irrigation system, and payment of charges as they became due the United States was not made. The powerplant at Garden City was therefore closed in 1910.

The act of June 5, 1920 (41 Stat. 1054), provided

that contracts affecting lands in the Garden City project, between the Finney County Water Users' Association or individual landowners, and the Secretary of the Interior, for the supply and use of water from the irrigation plant of the United States, were canceled and relieved, and liens upon the lands created by such contracts were released and discharged.

The total amount that has been charged off as a loss to the Reclamation fund for this project is \$334,474.96.

GILA PROJECT

YUMA, ARIZ.

Construction of the Gila project in Yuma County, Ariz., was originally authorized under a finding of feasibility approved by the President on June 21, 1937, in accordance with section 4, act of December 5, 1924 (43 Stat. 701). The project was reauthorized and reduced in area to 115,000 acres by the act of July 30, 1947 (61 Stat. 628). The act of June 13, 1949, authorized the furnishing of water to the Yuma auxiliary project through the works of the Gila project (63 Stat. 172).

Project features include Imperial Dam, Gila desilting works, Gila gravity main canal, the Yuma Mesa canals and distribution system, the lateral system in the North Gila Valley originally constructed as part of the Yuma project, the Wellton-Mohawk canals and distribution system, and drainage and protective works. Upon full development, the project will provide irrigation service to 75,000 acres in the Wellton-Mohawk division and 40,000 acres in the Yuma Mesa division, which includes 15,000 acres in the North and South Gila Valleys. The total estimated cost for the Gila project is \$51,657,325.

The United States operates and maintains the project common features, the Yuma Mesa unit distribution system, and three main pumping plants in the Wellton-Mohawk division; and maintains only those works in the Wellton-Mohawk distribution system outside irrigation blocks. Care, operation and maintenance by the United States is financed both from advanced funds and appropriated construction funds.

WELLTON-MOHAWK DIVISION

The entire cost of the Wellton-Mohawk division direct features is scheduled for repayment by irrigation. The division's share of project common features also is allocated for repayment by irrigation, other than certain costs of the common features allocated to excess capacity due to reduction

in size of the Gila project by the act of July 30, 1947 (61 Stat. 628), which are nonreimbursable pursuant to the act of January 28, 1956 (70 Stat. 5).

Three irrigation blocks have been established on the Wellton-Mohawk division and transferred to the Wellton-Mohawk irrigation and drainage district for care, operation and maintenance. The district also operates certain limited facilities which have not as yet been included in established blocks. A tentative allocation of costs among blocks has not been made. The initial payment is due December 31, 1963.

YUMA MESA DIVISION

The costs allocable to the Yuma Mesa division also are scheduled for repayment by irrigation, aside from approximately \$6,094,511 of Gila project cost made nonreimbursable by act of July 30, 1956 (70 Stat. 5). A contract was executed on May 26, 1956, with the Yuma Mesa irrigation and drainage district, encompassing the Yuma Mesa unit, which established the general repayment obligation of the District at \$5,641,167.45. This amount has been allocated to two irrigation blocks for repayment over a 60-year period following the end of the development period for each block.

Pursuant to the act of June 13, 1949 (63 Stat. 172), water deliveries to the Yuma auxiliary project are made through the facilities of the Gila project. By contract of December 22, 1952, with the Unit B irrigation and drainage district, the district agreed to repay \$456,090 of Gila project costs for capacity utilized in diverting and carriage of water.

The North Gila Valley irrigation district, encompassing lands in the North Gila Valley, by contract of May 12, 1953, as amended, assumed a maximum repayment obligation of \$475,000 for its share of Gila project works. The remaining

capacity of 130 cubic feet per second in the Gila gravity main canal, presently available for South Gila Valley lands, has not been contracted for. This capacity is now being utilized to serve a number of Warren Act contractors, and a proportionate amount of the water charges is applied against construction costs.

CONTRACTS

- 1952, March 4: Contract Ilr-1591 with Wellton-Mohawk irrigation and drainage district. Established a maximum repayment obligation of \$42 million to be allocated for repayment among irrigation blocks. Payments are to begin following a 10-year development period for each block at an annual rate of one-sixtieth of the repayment obligation of the block. The initial payment for the first irrigation block is not due until December 31, 1963.
- 1954, June 19: Wellton-Mohawk irrigation and drainage district, supplemental to March 4, 1952, contract. Deals with the supply and cost to the district of power and energy for project purposes.
- 1954, October 13: Wellton-Mohawk irrigation and drainage district, amendatory to March 4, 1952, contract. Provides for termination of incremental value provisions.
- 1954, December 16: Wellton-Mohawk irrigation and drainage district, amendatory to March 4, 1952, contract, relative to establishment, operation and maintenance of irrigation blocks and works.
- 1955, April 25: Wellton-Mohawk irrigation and drainage district, supplementary to March 4, 1952, contract, relative to construction of electric facilities, transmission and charge for power.
- 1955, December 9: Wellton-Mohawk irrigation and drainage district, supplemental and amendatory to March 4, 1952, contract. Provided for transfer of certain works to the district for operation, and advance of operation and maintenance funds.
- 1952, December 22: Unit B irrigation and drainage district. Provided for repayment of \$456,090 of Gila project costs for capacity utilized by the dis-

trict, and repayment of not to exceed \$510,000 for construction, extension and improvement of Yuma auxiliary project works. Repayment for each acre under water right is to be made in 120 equal semi-annual instalments. The initial payment date was December 1, 1953.

- 1953, May 12: North Gila Valley irrigation district. Contract 14-06-W-54 provided for repayment by the district of maximum obligation of \$325,000 in 120 equal semiannual instalments, with initial payment due on January 1, 1954.
- 1954, June 24: Contract 14-06-W-66 with North Gila Valley irrigation district, amendatory and supplemental to May 12, 1953, contract. Provided for increase in general repayment obligation to \$475,000, and initial payment date was advanced to January 1, 1955.
- 1956, May 26: Contract 14-06-W-102 with Yuma Mesa irrigation and drainage district. Established a maximum repayment obligation of \$5,641,167.45, allocated between two irrigation blocks. Payment is to begin on January 1, 1958, for block 1 and on January 1, 1962, for block 2. Repayment of the total obligation for each block is scheduled over a 60-year period at the rate of one-half of 1 percent annually for the first 10 years, 1 percent annually for the next 10 years, and 2½ percent annually for the last 10 years.

In addition to the foregoing, a number of small miscellaneous water contracts have been executed on the Gila project, which are summarized separately under the tabulation entitled "Miscellaneous Water Contracts."

The summary of status of repayment contracts (excludes amount of \$456,090 covered by unit B irrigation and drainage district contract of December 22, 1952):

Total value of contracted repayment.....	\$48, 116, 167
Total matured charges.....	23, 750
Total matured charges repaid.....	23, 750
Total matured charges unpaid.....	0

Gila project—miscellaneous water contracts

Individual or organization	Date of contract	Type of contract	Contract period	Date of initial water deliveries	Rates of payment, per acre-foot
Franeva Farms, Inc.	Jan. 1, 1951	Warren Act	Indefinite	Jan. 1, 1951	\$1. 30
Neva S. and Frank S. Hartman	do.	do.	do.	do.	1. 30
Autumn E. Struve	do.	do.	do.	do.	1. 30
E. P. Roy	do.	do.	do.	do.	1. 30
Merle and Neva Thomas	Jan. 1, 1952	do.	do.	Feb. 1, 1952	1. 30
Delmar and Jane Lewis	do.	do.	do.	do.	1. 30
Vesta Thomas	do.	do.	do.	do.	1. 30
Ethel Madden	do.	do.	do.	do.	1. 30
Ruth B. Thomas	do.	do.	do.	do.	1. 30
Harold Sturges	do.	do.	do.	do.	1. 30
Roscoe K. Sturges	do.	do.	do.	do.	1. 30
Irma B. Sturges	do.	do.	do.	None	1. 30
Virginia B. Landon	do.	do.	do.	Feb. 1, 1952	1. 30
Clarence and Lorraine Jones	Jan. 1, 1955	do.	do.	May 1955	1. 30
Desert Lawn Memorial Park Association.	May 1, 1956	Miscellaneous purposes.	do.	May 1, 1956	10. 00
City of Yuma	do.	do.	do.	do.	10. 00
U. S. Department of Army	June 12, 1951	do.	do.	June 12, 1951	10. 00
Southern Pacific Co.	Feb. 10, 1953	do.	do.	Jan. 1954	10. 00
U. S. Department of the Air Force	Nov. 1, 1953	do.	do.	Nov. 1, 1953	(¹)
Housing Authority of County of Yuma.	Nov. 27, 1953	do.	do.	Nov. 27, 1953	10. 00
Ritz Distributing Co.	Jan. 1, 1954	do.	do.	June 1, 1954	10. 00
Yuma Mesa Fruitgrowers' Association.	Oct. 1, 1956	do.	do.	Oct. 1, 1956	10. 00
County of Yuma, Ariz.	June 21, 1957	do.	do.	Jan. 1, 1957	10. 00

¹ First 1,000 acre-feet per annum at \$7.50 per acre-foot plus Air Force furnishing water and sewage disposal for Bureau buildings. All over first 1,000 acre-feet per annum—\$10 per acre-foot.

Construction repayment history—North Gila Valley irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955	\$475, 000	\$7, 917		\$7, 917	\$7, 917		\$7, 917	\$7, 917
1956	475, 000	7, 916		7, 916	7, 916		7, 916	15, 833
1957	475, 000	7, 917		7, 917	7, 917		7, 917	23, 750
Total		23, 750		23, 750	23, 750		23, 750	
Collected				23, 750				
Uncollected				0				

Operation and maintenance assessments history

Fiscal year	North Gila Valley irrigation district		Wellton-Mohawk irrigation and drainage district	
	Accruals	Collections	Accruals	Collections
1955	\$5, 745	\$5, 745		
1956	5, 681	5, 681	\$63, 652	\$63, 652
1957	9, 191	9, 191	117, 800	117, 800
Total	20, 617	20, 617	181, 452	181, 452

Payout study—North Gila Valley irrigation district and Yuma-Mesa irrigation and drainage district

Fiscal year	North Gila Valley irrigation district	Yuma-Mesa irrigation and drainage district		Total	Investment repayment	
		Block 1	Block 2		Maximum contract obligations	Interest free balance to be repaid
1958-----	\$7, 916. 66	\$8, 659. 77	-----	\$16, 576. 43	\$6, 116, 167. 45	\$6, 075, 841. 04
1959-----	7, 916. 66	17, 319. 53	-----	25, 236. 19	6, 116, 167. 45	6, 050, 604. 85
1960-----	7, 916. 66	17, 319. 53	-----	25, 236. 19	6, 116, 167. 45	6, 025, 358. 66
1961-----	7, 916. 66	17, 319. 53	-----	25, 236. 19	6, 116, 167. 45	6, 000, 132. 47
1962-----	7, 916. 66	17, 319. 53	\$5, 443. 15	30, 679. 34	6, 116, 167. 45	5, 969, 453. 13
1963-----	7, 916. 66	17, 319. 53	10, 886. 30	36, 122. 49	6, 116, 167. 45	5, 933, 330. 64
1964-----	7, 916. 66	17, 319. 53	10, 886. 30	36, 122. 49	6, 116, 167. 45	5, 897, 208. 15
1965-----	7, 916. 66	17, 319. 53	10, 886. 30	36, 122. 49	6, 116, 167. 45	5, 861, 085. 66
1966-----	7, 916. 66	17, 319. 53	10, 886. 30	36, 122. 49	6, 116, 167. 45	5, 824, 963. 17
1967-----	7, 916. 66	17, 319. 53	10, 886. 30	36, 122. 49	6, 116, 167. 45	5, 788, 840. 68
1968-----	7, 916. 66	25, 979. 30	10, 886. 30	44, 782. 26	6, 116, 167. 45	5, 744, 058. 42
1969-----	7, 916. 66	34, 639. 07	10, 886. 30	53, 442. 03	6, 116, 167. 45	5, 690, 616. 39
1970-----	7, 916. 66	34, 639. 07	10, 886. 30	53, 442. 03	6, 116, 167. 45	5, 637, 174. 36
1971-----	7, 916. 66	34, 639. 07	10, 886. 30	53, 442. 03	6, 116, 167. 45	5, 583, 732. 33
1972-----	7, 916. 66	34, 639. 07	16, 329. 46	58, 885. 19	6, 116, 167. 45	5, 524, 847. 14
1973-----	7, 916. 66	34, 639. 07	21, 772. 61	64, 328. 34	6, 116, 167. 45	5, 460, 518. 80
1974-----	7, 916. 66	34, 639. 07	21, 772. 61	64, 328. 34	6, 116, 167. 45	5, 396, 190. 46
1975-----	7, 916. 66	34, 639. 07	21, 772. 61	64, 328. 34	6, 116, 167. 45	5, 331, 862. 12
1976-----	7, 916. 66	34, 639. 07	21, 772. 61	64, 328. 34	6, 116, 167. 45	5, 267, 533. 78
1977-----	7, 916. 66	34, 639. 07	21, 772. 61	64, 328. 34	6, 116, 167. 45	5, 203, 205. 44
1978-----	7, 916. 66	54, 123. 54	21, 772. 61	83, 812. 81	6, 116, 167. 45	5, 119, 392. 63
1979-----	7, 916. 66	73, 608. 02	21, 772. 61	103, 297. 29	6, 116, 167. 45	5, 016, 095. 34
1980-----	7, 916. 66	73, 608. 02	21, 772. 61	103, 297. 29	6, 116, 167. 45	4, 912, 798. 05
1981-----	7, 916. 66	73, 608. 02	21, 772. 61	103, 297. 29	6, 116, 167. 45	4, 809, 500. 76
1982-----	7, 916. 66	73, 608. 02	34, 019. 69	115, 544. 37	6, 116, 167. 45	4, 693, 956. 39
1983-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	4, 566, 164. 92
1984-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	4, 438, 373. 45
1985-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	4, 310, 581. 98
1986-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	4, 182, 790. 51
1987-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	4, 054, 999. 04
1988-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	3, 927, 207. 57
1989-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	3, 799, 416. 10
1990-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	3, 671, 624. 63
1991-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	3, 543, 833. 16
1992-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	3, 416, 041. 69
1993-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	3, 288, 250. 22
1994-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	3, 160, 458. 75
1995-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	3, 032, 667. 28
1996-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	2, 904, 875. 81
1997-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	2, 777, 084. 34
1998-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	2, 649, 292. 87
1999-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	2, 521, 501. 40
2000-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	2, 393, 709. 93
2001-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	2, 265, 918. 46
2002-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	2, 138, 126. 99
2003-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	2, 010, 335. 52
2004-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	1, 882, 544. 05
2005-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	1, 754, 752. 58
2006-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	1, 626, 961. 11
2007-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	1, 499, 169. 64
2008-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	1, 371, 378. 17
2009-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	1, 243, 586. 70
2010-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	1, 115, 795. 23
2011-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	988, 003. 76
2012-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	860, 212. 29
2013-----	7, 916. 66	73, 608. 02	46, 266. 79	127, 791. 47	6, 116, 167. 45	732, 420. 82
2014-----	7, 917. 06	73, 608. 02	46, 266. 79	127, 791. 87	6, 116, 167. 45	604, 628. 95
2015-----	-----	73, 608. 02	46, 266. 79	119, 874. 81	6, 116, 167. 45	484, 754. 14
2016-----	-----	73, 608. 02	46, 266. 79	119, 874. 81	6, 116, 167. 45	364, 879. 33
2017-----	-----	73, 608. 02	46, 266. 79	119, 874. 81	6, 116, 167. 45	245, 004. 52
2018-----	-----	36, 804. 02	46, 266. 79	83, 070. 81	6, 116, 167. 45	161, 933. 71
2019-----	-----	-----	46, 266. 79	46, 266. 79	6, 116, 167. 45	115, 666. 92
2020-----	-----	-----	46, 266. 79	46, 266. 79	6, 116, 167. 45	69, 400. 13
2021-----	-----	-----	46, 266. 79	46, 266. 79	6, 116, 167. 45	23, 133. 34
2022-----	-----	-----	23, 133. 34	23, 133. 34	6, 116, 167. 45	0
Total-----	451, 250. 02	3, 463, 906. 81	2, 177, 260. 64	6, 092, 417. 47	6, 116, 167. 45	-----

GRAND VALLEY PROJECT

GRAND JUNCTION, COLO.

The Grand Valley project, located near Grand Junction in Mesa County, Colo., was examined and reported upon by a board of Army Engineers in accordance with the act of June 25, 1910 (36 Stat. 835), and approved by the President January 5, 1911.

The original project features include the diversion dam and headworks on the Colorado River, a distribution system consisting of 55 miles of main canal and 166 miles of laterals, and a pumping plant to serve lands above gravity diversions. Other project features consist of 142 miles of open drains and a powerplant of 3,000-kilowatt capacity. The constructed features serve 33,344 acres under the Gravity and Orchard Mesa divisions and 8,400 acres of Warren Act lands by gravity and pumping in the Palisade and Mesa County irrigation districts. The project consists of the Garfield Gravity Division, which was the original project, and the Orchard Mesa division, begun in 1922.

GARFIELD GRAVITY DIVISION

The total cost of constructing the Garfield Gravity division features is \$6,269,770, including estimated rehabilitation and betterment costs. The entire amount, with the exception of the chargeoff of \$1,839,426 under the Omnibus Adjustment Act of May 25, 1926 (44 Stat. 636), and contributed funds of \$211,300 together with revenues and other cost adjustments, is repayable under the terms of the repayment contracts with the Grand Valley Water Users Association. The Omnibus Adjustment Act authorized the suspension of construction charges against project lands found to be temporarily unproductive. A powerplant was constructed on the project with funds (\$210,500) advanced by the Public Service Co. of Colorado. The company operates the plant and pays \$12,000 a year to the United States,

this amount being credited to the annual installment on construction features, payment to be made for a period of 25 years.

The power company pays a minimum of \$3,360 annually for the operation and maintenance of that portion of the canal system that delivers power water.

On January 1, 1949, the Grand Valley Water Users Association assumed the operation and maintenance of project facilities.

Rehabilitation and betterment.—On March 3, 1950, a contract with the Grand Valley Water Users Association for rehabilitation and betterment of certain Garfield Gravity Division irrigation works was executed. On March 5, 1951, this contract was amended, increasing the contractual obligation from not to exceed \$1,500,000 to not to exceed \$1,900,000. The work was completed at a cost of \$1,658,328. Repayment commenced in 1954 and is scheduled for completion in 2019.

CONTRACTS

- 1928, January 4: Contract Ilr-644 with Grand Valley Water Users Association. Association assumed obligation to repay \$1,938,571 project construction cost in 40 graduated annual installments.
- 1931, June 19: Contract with the United States, Grand Valley Water Users Association, and the Public Service Co. of Colorado. The Public Service Co. advanced funds to build a 3,000-kilowatt powerplant on the project, paying the association \$12,000 annually for 25 years to be applied on project construction costs.
- 1942, March 27: Amendatory Contract Ilr-644 with the Grand Valley Water Users Association. Covers rehabilitation costs of \$75,000 on tunnel No. 3, to be repaid in 26 equal annual installments.
- 1945, January 27: Amendatory Contract Ilr-644 with the Grand Valley Water Users Association. Unaccrued balance of obligation under the 1928 and the 1942 contracts to be paid in 58 semiannual installments, the first 30 installments of \$17,606 and the last 28 installments of \$35,210 to be paid in June and December of each year.

1950, March 3: Contract Ilr-1567 with Grand Valley Water Users Association. Emergency repairs and rehabilitation of project works. Estimated obligation was \$1,500,000, to be repaid in 58 years, with first installment due in 1954, the first 20 annual installments to be token payments until the 1945 contractual payments are completed, the balance of the indebtedness to be repaid in 38 annual installments of \$33,500.

1951, March 5: Contract Ilr-1567 with the Grand Valley Water Users Association amends the 1950 contract, increasing the total obligation to \$1,900,000.

The status of the Garfield Gravity division repayment on June 30, 1957, is as follows:

Total value of contracted repayment-----	\$3, 782, 642
Total matured charges-----	906, 093
Total charges repaid-----	906, 093
Total matured charges unpaid-----	0

ORCHARD MESA DIVISION

On February 18, 1922, the Orchard Mesa irrigation district contracted with the United States and the Grand Valley Water Users Association for the reconstruction of its irrigation facilities and for provision of water through the association's facilities. The cost of this work, \$1,182,773 together with interest and penalties funded, is fully repayable under the terms of the repayment contract. The Orchard Mesa division of the project provides water to 10,027 acres and is operated by the district.

Rehabilitation and betterment.—On October 4, 1955, the Orchard Mesa irrigation district signed a contract to repay costs not to exceed \$180,000 of a rehabilitation and betterment program for

Construction repayment history—Garfield Gravity division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1928-----								
1929-----								
1930-----	\$3, 074, 816							
1931-----	3, 074, 816	¹ \$80, 238		\$80, 238	\$69, 284		\$69, 284	\$69, 284
1932-----	3, 074, 816	² 26, 706		26, 706	0	\$9, 496	9, 496	78, 780
1933-----	3, 074, 251	² 0	³ \$26, 706	² 26, 706	0		0	78, 780
1934-----	3, 077, 040	² 10, 169		10, 169	10, 169	1, 458	11, 627	90, 407
1935-----	3, 079, 719	² 8, 790		8, 790	8, 790		8, 790	99, 197
1936-----	3, 077, 165	² 10, 898		10, 898	10, 898		10, 898	110, 095
1937-----	3, 077, 209	² 17, 702		17, 702	17, 702		17, 702	127, 797
1938-----	3, 077, 209	35, 480		35, 480	35, 480		35, 480	163, 277
1939-----	3, 077, 209	35, 503		35, 503	31, 603		31, 603	194, 880
1940-----	3, 077, 209	35, 666		35, 666	35, 150	3, 900	39, 050	233, 930
1941-----	3, 077, 209	35, 812		35, 812	31, 812	517	32, 329	266, 259
1942-----	3, 077, 209	45, 096		45, 096	34, 420	4, 000	38, 420	304, 679
1943-----	3, 150, 948	45, 139	⁴ 10, 000	35, 139	35, 139	676	35, 815	340, 494
1944-----	3, 150, 948	45, 188		45, 188	40, 988	10, 000	50, 988	391, 482
1945-----	3, 155, 323	45, 188		45, 188	43, 611	4, 200	47, 811	439, 293
1946-----	3, 155, 323	35, 213		35, 213	35, 213	1, 576	36, 789	476, 082
1947-----	3, 155, 323	35, 212		35, 212	35, 212		35, 212	511, 294
1948-----	3, 155, 323	35, 212		35, 212	35, 212		35, 212	546, 506
1949-----	3, 155, 323	35, 212		35, 212	23, 030		23, 030	569, 536
1950-----	4, 655, 323	35, 394		35, 394	35, 394	12, 182	47, 576	617, 112
1951-----	5, 055, 323	35, 394		35, 394	35, 394		35, 394	652, 506
1952-----	5, 055, 323	35, 703		35, 703	35, 703		35, 703	688, 209
1953-----	⁵ 4, 813, 651	35, 703		35, 703	35, 703		35, 703	723, 912
1954-----	⁵ 4, 333, 286	41, 933		41, 933	41, 933		41, 933	765, 845
1955-----	⁵ 4, 283, 036	46, 696		46, 696	46, 696		46, 696	812, 541
1956-----	⁵ 3, 782, 642	46, 611		46, 611	46, 611		46, 611	859, 152
1957-----	3, 782, 642	46, 941		46, 941	46, 941		46, 941	906, 093
Total-----		942, 799	— 36, 706	906, 093	858, 088	48, 005	906, 093	
Collected-----				906, 093				
Uncollected-----				0				

¹ Accruals for calendar years 1927 to 1930, inclusive.

² Moratorium period, acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$23,374; 1932, \$33,430; 1933, \$28,120; 1934, \$26,475; 1935, \$24,482; 1936, \$17,746.

³ Decreases cover amounts deferred under relief acts.

⁴ \$10,000 deferred for calendar year 1941, act of Aug. 4, 1939.

⁵ Decrease. Chargeoff under act of May 25, 1926 (44 Stat. 638).

certain Orchard Mesa division irrigation works. The costs of the program are to be repaid in six equal annual installments commencing in 1970.

CONTRACTS

- 1922, February 18: Orchard Mesa irrigation district contract for reconstruction of district's irrigation system. Estimated cost \$1,000,000 payable in 20 graduated annual installments.
- 1931, September 10: Repayment period extended to 40 years.

1955, October 4: Contract No. 14-06-400-325 with Orchard Mesa irrigation district for rehabilitation and betterment of division's works at a cost of not to exceed \$180,000 and to be repaid in 6 equal installments commencing in 1970.

The status of the Orchard Mesa division repayment on June 30, 1957, is as follows:

Total value of contracted repayment-----	\$1, 184, 840
Total matured charges-----	614, 049
Total matured charges repaid-----	614, 049
Total matured charges unpaid-----	0

Construction repayment history—Orchard Mesa division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1923	\$1, 000, 000							
1924	1, 000, 000							
1925	1, 000, 000							
1926	1, 000, 000							
1927	1, 000, 000							
1928	999, 768	\$19, 995		\$19, 995	\$17, 224		\$17, 224	\$17, 224
1929	999, 768	19, 995		19, 995	8, 906	\$2, 772	11, 678	28, 902
1930	999, 768	19, 996		19, 996	4, 062	11, 089	15, 151	44, 053
1931	999, 768	19, 995		19, 995	0	14, 441	14, 441	58, 494
1932	999, 768	² 15, 000	¹ \$19, 995	¹ 4, 995	15, 000	1, 492	16, 492	74, 986
1933	999, 768	² 0	¹ 15, 000	¹ 15, 000	0	¹ 15, 000	¹ 15, 000	59, 986
1934	1, 001, 229	² 0		0	0		0	59, 986
1935	1, 002, 616	² 0		0	0		0	59, 986
1936	1, 001, 315	² 0		0	0		0	59, 986
1937	1, 001, 340	² 10, 000		10, 000	10, 000		10, 000	69, 986
1938	1, 001, 340	20, 000		20, 000	20, 000		20, 000	89, 986
1939	1, 001, 340	20, 000		20, 000	17, 249		17, 249	107, 235
1940	1, 001, 340	20, 000		20, 000	20, 000	2, 751	22, 751	129, 986
1941	1, 001, 340	25, 000		25, 000	25, 000		25, 000	154, 986
1942	1, 001, 340	25, 000		25, 000	25, 000		25, 000	179, 986
1943	1, 001, 340	25, 000		25, 000	25, 000		25, 000	204, 986
1944	1, 001, 340	25, 000		25, 000	25, 000		25, 000	229, 986
1945	1, 001, 340	25, 000		25, 000	25, 000		25, 000	254, 986
1946	1, 001, 340	29, 922		29, 922	29, 922		29, 922	284, 908
1947	1, 001, 340	29, 922		29, 922	29, 922		29, 922	314, 830
1948	1, 001, 340	29, 922		29, 922	29, 922		29, 922	344, 752
1949	1, 004, 840	29, 922		29, 922	29, 922		29, 922	374, 674
1950	1, 004, 840	29, 922		29, 922	29, 922		29, 922	404, 596
1951	1, 004, 840	29, 922		29, 922	29, 922		29, 922	434, 518
1952	1, 004, 840	29, 922		29, 922	29, 922		29, 922	464, 440
1953	1, 004, 840	29, 922		29, 922	29, 922		29, 922	494, 362
1954	1, 004, 840	29, 922		29, 922	29, 922		29, 922	524, 284
1955	1, 004, 840	29, 922		29, 922	29, 922		29, 922	554, 206
1956	1, 184, 840	29, 921		29, 921	29, 921		29, 921	584, 127
1957	1, 184, 840	29, 922		29, 922	29, 922		29, 922	614, 049
Total		649, 044	— 34, 995	614, 049	596, 504	17, 545	614, 049	
Collected				614, 049				
Uncollected				0				

¹ Decreases cover amounts deferred under relief acts.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar

years 1931, \$15,937; 1932, \$15,487; 1933, \$15,037; 1934, \$15,037; 1935, \$20,049; 1936, \$10,025.

The allocation and repayment of costs:

Allocation	Garfield Gravity division	Orchard Mesa division	Total
Total estimated cost.....	\$6, 269, 770	\$1, 182, 773	\$7, 452, 543
Allocation to irrigation.....	6, 269, 770	1, 182, 773	7, 452, 543
Less:			
Chargeoff by Congress.....	1, 839, 426	-----	1, 839, 426
Contributions.....	211, 300	-----	211, 300
Revenues applied to cost.....	57, 237	-----	57, 237
Nonreimbursable costs—CCC.....	291, 300	-----	291, 300
Add:			
Operation and maintenance funded.....	138, 945	495	139, 440
Interest and penalties funded.....	2, 958	1, 572	4, 530
Transitional development costs.....	41, 197	-----	41, 197
Adjustments pending.....	4, 035	-----	4, 035
Total repayment contracts.....	¹ 4, 057, 642	1, 184, 840	¹ 5, 242, 482
Temporarily suspended obligation:			
Omnibus Adjustment Act.....	8, 958	-----	8, 958
Unentered public lands.....	108, 143	-----	108, 143
Garfield pumping division.....	26, 009	-----	26, 009
Active repayment obligation.....	3, 914, 532	1, 184, 840	5, 099, 372

¹Repayment contract in amount of \$275,000 being negotiated.

*Operation and maintenance assessments history—
Garfield Gravity division*

Fiscal year	Accruals	Collections
1928.....	\$47, 562	\$44, 715
1929.....	50, 438	43, 285
1930.....	50, 000	53, 000
1931.....	47, 500	49, 500
1932.....	45, 000	39, 000
1933.....	24, 115	28, 630
1934.....	44, 058	47, 428
1935.....	49, 843	52, 958
1936.....	49, 696	48, 196
1937.....	48, 872	50, 372
1938.....	49, 948	49, 948
1939.....	49, 963	49, 963
1940.....	49, 995	49, 995
1941.....	47, 760	42, 860
1942.....	43, 132	43, 432
1943.....	49, 203	53, 803
1944.....	62, 000	62, 000
1945.....	54, 771	54, 771
1946.....	63, 444	63, 444
1947.....	72, 819	72, 819
1948.....	79, 377	79, 377
1949.....	27, 500	27, 500
Total.....	1, 106, 996	1, 106, 996

GRANTS PASS PROJECT

GRANTS PASS, OREG.

The Grants Pass irrigation district, located in the valley of Rogue River in southwestern Oregon near the city of Grants Pass, was organized January 1917. The irrigation system provides for direct diversion from Savage Rapids Dam into a gravity flow main canal and into two highline canals through direct connected hydraulic turbine pumps. Currently there are about 10,000 irrigable acres within the district, most of which are used for part-time and residential purposes in and near the city of Grants Pass.

The Interior Department Appropriation Act of 1950 (October 12, 1949, 63 Stat. 765), authorized the emergency reconstruction of the Northwest unit pipeline of the Grants Pass irrigation district in Jackson and Josephine Counties in southwestern Oregon as part of the Deschutes project by appropriating \$100,000 for the work.

The \$100,000 was expended on the construction of a pipeline under the bed of the Rogue River to replace flood-damaged lines across the river which had to be removed at the end of each irrigation season and replaced each spring, and the replacement of deteriorated adjacent pipelines. The entire amount is allocated to irrigation and repayable by project water users. Work was started and completed during fiscal year 1950 on an emergency basis, after negotiation of a suitable repayment contract with the district.

Prior to completion of work on the pipeline, it was apparent that major repairs were needed on Savage Rapids Dam. The Interior Department Appropriation Act of 1953 (July 9, 1952, 66

Stat. 445) authorized this work by providing \$700,000 for fiscal year 1953. This work was started March 16, 1953, and substantially completed February 22, 1955. Costs through June 30, 1957, totaled \$708,883. Notice of actual costs has not been issued to the district since there are several small outstanding transactions that will result in slight changes. The Interior Department Appropriation Act of 1957 (July 2, 1956, 70 Stat. 474) provided \$208,000 in nonreimbursable funds for fish protective facilities at the dam. Nonreimbursable costs through June 30, 1957, totaled \$22,533.

The Grants Pass irrigation district operates the project works. Repayment of all rehabilitation work began in 1953 and will be completed in 2010.

CONTRACTS AND NOTICES

- 1949, December 16: Contract Ilr-1553 with Grants Pass irrigation district, not to exceed \$100,000.
- 1951, December 29: Formal notice of actual construction cost from Acting Secretary of Interior, \$100,000, 40 annual installments, \$2,500 each, commencing in fiscal year 1953.
- 1952, December 12: Contract 14-06-100-43 with Grants Pass irrigation district, not to exceed \$850,000, for rehabilitation of Savage Rapids Dam. Repayment period will extend for about 55 years. Annual payments are fixed until the district elects to apply a modified normal and percentage plan specified in the contract.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$950, 000
Total matured charges.....	12, 500
Total matured charges repaid.....	12, 500
Total matured charges unpaid.....	0

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
953-----	¹ \$950,000	\$2,500	-----	\$2,500	\$2,500	-----	\$2,500	\$2,500
954-----	950,000	2,500	-----	2,500	2,500	-----	2,500	5,000
955-----	950,000	2,500	-----	2,500	2,500	-----	2,500	7,500
956-----	950,000	2,500	-----	2,500	2,500	-----	2,500	10,000
957-----	950,000	2,500	-----	2,500	2,500	-----	2,500	12,500
Total-----	-----	12,500	-----	12,500	12,500	-----	12,500	-----
Collected-----	-----	-----	-----	12,500	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	0	-----	-----	-----	-----

¹ Includes \$100,000 actual cost obligation for rehabilitation of Northwest unit pipeline, and \$850,000 maximum contractual obligation for rehabilitation of Savage Rapids Dam.

HONDO PROJECT

CARLSBAD, N. MEX.

The Hondo project was authorized by the Secretary under the Reclamation Act of 1902 (32 Stat. 388). It was examined and reported upon by a board of Army Engineers and approved by the President on January 5, 1911, in accordance with the act of June 25, 1910 (36 Stat. 835). The project was completed in 1907, but proved to be unsuccessful because of an insufficient rainfall and the development of extensive leaks in the reservoir. On April 1, 1917, the United States withdrew its employees and ceased operation.

No water-right applications were filed, no liens established against the lands, and no repayment contract entered into.

The Hondo Irrigation Association was formed in 1921 for the purpose of taking over operation and maintenance of the Hondo project. On September 2, 1922, a contract was executed by which the United States delivered all works of the Hondo project to the association for the purpose of operation and maintenance.

In 1924 the committee of special advisers (Fact Finders Committee) recommended that the Hondo project be appraised and sold, and the losses incurred charged to the Reclamation fund. Total cost of construction is \$339,377, and of operation and maintenance is \$32,411.

HUMBOLDT PROJECT

LOVELOCK, NEV.

Construction of the Humboldt project in Pershing County, Nev., was approved by the President on November 6, 1935, under the terms of subsection B, section 4 of the act of December 5, 1924 (43 Stat. 701).

The original plan provided for the construction of Rye Patch Dam and Reservoir on the Humboldt River to supply irrigation water to 40,000 acres. The purchase of ranching properties in the Battle Mountain Valley for their decreed water rights was made to firm up the project's water supply.

The total estimated cost of constructing the project features (including rehabilitation) is \$1,337,321. This amount, together with operation and maintenance funded, less revenues, is fully repayable by the Pershing County water conservation district. Operation and maintenance of the project was transferred to the district on January 15, 1941.

Repayment contracts.—The original repayment contract was signed by the Pershing County water conservation district on October 1, 1934, to repay the construction cost of the Humboldt project facilities in 36 equal annual installments, commencing in 1944.

On October 6, 1955, the Pershing County water conservation district signed a contract to repay the costs of rehabilitation and betterment of works in the Battlemountain water development and collection system. The amount of the obligation is not to exceed \$123,000, to be repaid in 20 equal annual installments following notice of completion of work and statement of final cost.

CONTRACTS

- 1934, October 1: Contract Ilr-774 with the Pershing County water conservation district. District agreed to repay construction costs, not to exceed \$1,500,000 in 36 equal annual installments.
- 1941, August 8: Supplemental Contract Ilr-774 with the Pershing County water conservation district. Excess land provisions of the Federal reclamation laws were nullified on the Humboldt project lands as provided by the act of Congress of November 29, 1940 (Public Law 883, 76th Cong.).
- 1948, April 6: Letter notice to the Pershing County water conservation district stating that construction of project features was completed and the costs to be repaid were \$1,312,101.08. Credit from sale of Pitt ranch, \$100,856.40. Balance to be repaid by irrigators, \$1,211,244.68.
- 1955, October 6: Contract 14-06-400-429 with Pershing County water conservation district of Nevada, contract obligation \$123,000, for rehabilitation and betterment of certain project features. The obligation is payable 5 percent annually on October 1 each year following notice of final cost.

The summary of status of repayment contracts:

Total value of contracted repayment----	\$1, 334, 245
Total matured charges-----	472, 386
Total matured charges repaid-----	472, 386
Total matured charges unpaid-----	0

The cost and repayment allocations:

Total project cost including rehabilitation---	\$1, 337, 321
Allocation of reimbursable costs: Irrigation--	1, 337, 321

Repayment from irrigation water users:

For irrigation plant investment-----	1, 337, 321
Operation and maintenance funded-----	25, 441
Less: revenues-----	28, 517

Total repayment obligation-----	1, 334, 245
---------------------------------	-------------

RECLAMATION REPAYMENTS

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1935	\$1,500,000							
1936	1,500,000							
1937	1,500,000							
1938	1,500,000							
1939	1,500,000							
1940	1,500,000							
1941	1,500,000							
1942	¹ 1,350,000							
1943	1,350,000	\$500		\$500	\$500		\$500	\$500
1944	1,350,000	39,553		39,553	39,553		39,553	40,053
1945	1,350,000	38,528		38,528	38,528		38,528	78,581
1946	1,350,000	38,528		38,528	38,528		38,528	117,109
1947	1,350,000	38,528		38,528	38,528		38,528	155,637
1948	1,211,245	38,528		38,528	38,528		38,528	194,165
1949	1,211,245	33,903		33,903	33,903		33,903	228,068
1950	1,211,245	33,903		33,903	33,903		33,903	261,971
1951	1,211,245	33,903		33,903	33,903		33,903	295,874
1952	1,211,245	33,903		33,903	33,903		33,903	329,777
1953	1,211,245	33,903		33,903	33,903		33,903	363,680
1954	1,211,245	33,902		33,902	33,902		33,902	397,582
1955	1,211,245	33,902		33,902	33,902		33,902	431,484
1956	1,211,245	33,902		33,902	33,902		33,902	465,386
1957	1,334,245	7,000		7,000	7,000		7,000	472,386
Total		472,386		472,386	472,386		472,386	
Collected				472,386				
Uncollected				0				

¹ Obligation reduced to revised estimated cost.

HUNGRY HORSE PROJECT

COLUMBIA FALLS, MONT.

The Hungry Horse project in Flathead County was authorized by the congressional act of June 5, 1944 (58 Stat. 270). The dam and powerplant are designed for flood control, generation of electrical energy, regulation of the Flathead River, and increasing firm power at downstream plants.

Repayment of the total estimated cost of \$101,456,489, with the exception of a nonreimbursable allocation for flood control and navigation, will be made by revenues from electrical energy produced at the powerplant and at other public and private powerplants downstream.

The dam and powerplant is operated by the Bureau of Reclamation. The transmission and

sale of all electrical energy is handled by the Bonneville Power Administration.

The tentative allocation of Hungry Horse costs is as follows:

Power and river regulation.....	\$82, 042, 192
Flood control and navigation.....	19, 669, 000

Total.....	101, 711, 192
------------	---------------

The total estimated plant investment in the Hungry Horse project is as follows:

Village and service facilities.....	\$1, 706, 017
Dam and reservoir.....	77, 538, 230
Powerplant.....	20, 051, 425
Transmission plant.....	2, 146, 654
General plant.....	268, 866

Total.....	101, 711, 192
------------	---------------

105

Payout study—Power

Fiscal year	Net income	Investment repayment from power revenues				Earned surplus, cumulative	Allowable unpaid balance
		3 percent interest	Principal	Interest bearing			
				In service at end of year	Balance to be repaid		
1953-----	\$652, 970	0	\$652, 970	\$68, 091, 496	\$67, 438, 526	0	\$68, 091, 496
1954-----	3, 800, 096	\$2, 023, 156	1, 776, 940	80, 163, 184	77, 733, 274	0	80, 163, 184
1955-----	3, 064, 758	2, 331, 998	732, 760	81, 626, 740	78, 464, 070	0	81, 626, 740
1956-----	3, 049, 700	2, 353, 922	695, 778	81, 864, 084	78, 005, 636	0	81, 864, 084
Subtotal through 1956--	10, 567, 524	6, 709, 076	3, 858, 448	81, 864, 084	78, 005, 636	0	81, 864, 084
1957-----	3, 117, 145	2, 340, 169	776, 976	81, 975, 192	77, 339, 768	0	81, 975, 192
1958-----	3, 121, 629	2, 320, 193	801, 436	82, 042, 192	76, 605, 332	0	82, 042, 192
1959-----	3, 124, 363	2, 298, 160	826, 203	82, 042, 192	75, 779, 129	0	82, 042, 192
1960-----	3, 124, 363	2, 273, 374	850, 989	82, 042, 192	74, 928, 140	0	82, 042, 192
1961-----	3, 124, 363	2, 247, 844	876, 519	82, 042, 192	74, 051, 621	0	82, 042, 192
1962-----	3, 124, 363	2, 221, 549	902, 814	82, 042, 192	73, 148, 807	0	82, 042, 192
1963-----	3, 124, 363	2, 194, 464	929, 899	82, 042, 192	72, 218, 908	0	82, 042, 192
1964-----	3, 124, 363	2, 166, 567	957, 796	82, 042, 192	71, 261, 112	0	82, 042, 192
1965-----	3, 124, 363	2, 137, 833	986, 530	82, 042, 192	70, 274, 582	0	82, 042, 192
1966-----	3, 124, 363	2, 108, 237	1, 016, 126	82, 042, 192	69, 258, 456	0	82, 042, 192
1967-----	3, 124, 363	2, 077, 754	1, 046, 609	82, 042, 192	68, 211, 847	0	82, 042, 192
1968-----	3, 124, 363	2, 046, 355	1, 078, 008	82, 042, 192	67, 133, 839	0	82, 042, 192
1969-----	3, 124, 363	2, 014, 015	1, 110, 348	82, 042, 192	66, 023, 491	0	82, 042, 192
1970-----	3, 124, 363	1, 980, 705	1, 143, 658	82, 042, 192	64, 879, 833	0	82, 042, 192
1971-----	3, 124, 363	1, 946, 395	1, 177, 968	82, 042, 192	63, 701, 865	0	82, 042, 192
1972-----	3, 124, 363	1, 911, 056	1, 213, 307	82, 042, 192	62, 488, 558	0	82, 042, 192
1973-----	3, 124, 363	1, 874, 657	1, 249, 706	82, 042, 192	61, 238, 852	0	82, 042, 192
1974-----	3, 124, 363	1, 837, 166	1, 287, 197	82, 042, 192	59, 951, 655	0	82, 042, 192
1975-----	3, 124, 363	1, 798, 550	1, 325, 813	82, 042, 192	58, 625, 842	0	82, 042, 192
1976-----	3, 124, 363	1, 758, 775	1, 365, 588	82, 042, 192	57, 260, 254	0	82, 042, 192
1977-----	3, 124, 363	1, 717, 808	1, 406, 555	82, 042, 192	55, 853, 699	0	82, 042, 192
1978-----	3, 124, 363	1, 675, 611	1, 448, 752	82, 042, 192	54, 404, 947	0	82, 042, 192
1979-----	3, 124, 363	1, 632, 148	1, 492, 215	82, 042, 192	52, 912, 732	0	82, 042, 192
1980-----	3, 124, 363	1, 587, 382	1, 536, 981	82, 042, 192	51, 375, 751	0	82, 042, 192
1981-----	3, 124, 363	1, 541, 273	1, 583, 090	82, 042, 192	49, 792, 661	0	82, 042, 192
1982-----	3, 124, 363	1, 493, 780	1, 630, 583	82, 042, 192	48, 162, 078	0	82, 042, 192
1983-----	3, 124, 363	1, 444, 862	1, 679, 501	82, 042, 192	46, 482, 577	0	82, 042, 192
1984-----	3, 124, 363	1, 394, 477	1, 729, 886	82, 042, 192	44, 752, 691	0	82, 042, 192
1985-----	3, 124, 363	1, 342, 581	1, 781, 782	82, 042, 192	42, 970, 909	0	82, 042, 192
1986-----	3, 124, 363	1, 289, 127	1, 835, 236	82, 042, 192	41, 135, 673	0	82, 042, 192
1987-----	3, 124, 363	1, 234, 070	1, 890, 293	82, 042, 192	39, 245, 380	0	82, 042, 192
1988-----	3, 124, 363	1, 177, 361	1, 947, 002	82, 042, 192	37, 298, 378	0	82, 042, 192
1989-----	3, 124, 363	1, 118, 951	2, 005, 412	82, 042, 192	35, 292, 966	0	82, 042, 192
1990-----	3, 124, 363	1, 058, 789	2, 065, 574	82, 042, 192	33, 227, 392	0	82, 042, 192
1991-----	3, 124, 363	996, 822	2, 127, 541	82, 042, 192	31, 099, 851	0	82, 042, 192
1992-----	3, 124, 363	932, 996	2, 191, 367	82, 042, 192	28, 908, 484	0	82, 042, 192
1993-----	3, 124, 363	867, 255	2, 257, 108	82, 042, 192	26, 651, 376	0	82, 042, 192
1994-----	3, 124, 363	799, 541	2, 324, 822	82, 042, 192	24, 326, 554	0	82, 042, 192
1995-----	3, 124, 363	729, 797	2, 394, 566	82, 042, 192	21, 931, 988	0	82, 042, 192
1996-----	3, 124, 363	657, 960	2, 466, 403	82, 042, 192	19, 465, 585	0	82, 042, 192
1997-----	3, 124, 363	583, 968	2, 540, 395	82, 042, 192	16, 925, 190	0	82, 042, 192
1998-----	3, 124, 363	507, 756	2, 616, 607	82, 042, 192	14, 308, 583	0	82, 042, 192
1999-----	3, 124, 363	429, 257	2, 695, 106	82, 042, 192	11, 613, 477	0	82, 042, 192
2000-----	3, 124, 363	348, 404	2, 775, 959	82, 042, 192	8, 837, 518	0	82, 042, 192
2001-----	3, 124, 363	265, 126	2, 859, 237	82, 042, 192	5, 978, 281	0	82, 042, 192
2002-----	3, 124, 363	179, 348	2, 945, 015	82, 042, 192	3, 033, 266	0	82, 042, 192
2003-----	3, 124, 264	90, 998	3, 033, 266	82, 042, 192	0	0	13, 950, 696
Total-----	157, 402, 534	75, 360, 342	82, 042, 192	82, 042, 192	0	0	13, 950, 696

HUNTLEY PROJECT

BALLANTINE, MONT.

Construction of Huntley project in Yellowstone County, Mont., was authorized by the Secretary of the Interior on April 18, 1905, under the Reclamation Act of June 17, 1902 (32 Stat. 388). It was examined and reported upon by a board of Army Engineers and approved by the President on January 5, 1911, in accordance with the act of June 25, 1910 (36 Stat. 835).

The project works developed to supply water to 32,500 acres of land consist of an 8-foot diversion dam in the Yellowstone River; approximately 32 miles of main canal with an initial capacity of 600 second-feet; about 200 miles of laterals; 183 miles of drains; a hydraulic vertical turbine pumping plant using water power from a drop in the main canal to lift water 43.5 feet to irrigate approximately 5,000 acres on the lower end of the project; and a storage reservoir with a capacity of 400 acre-feet.

Project works were transferred to Huntley project irrigation district for operation and maintenance on December 31, 1927.

A repayment contract executed January 2, 1927, provides that the Huntley project irrigation district assumes obligations previously under individual water-right applications and certain other costs including additional drainage work. The repayment period was extended to 40 years with additional time for previous delinquencies and for supplemental construction charges.

PUBLIC NOTICES AND CONTRACTS

- 1907, May 21: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.
- 1913, August 9: Public notice. Construction charge \$50 per acre, payable in 10 graduated installments.
- 1914, November 3: Public notice. Construction charge \$60 per acre, payable in 20 graduated installments.
- 1915, October 19: Public notice. Construction charge \$60 per acre, payable in 20 graduated installments.
- 1915, December 23: Public notice. Covers supplemental construction for first unit, \$15 per acre, payment in installments of \$1.80 and \$2 per acre after 20-year repayment period.
- 1920, June 30: Public notice. Announces that \$50 rate in public notice of August 9, 1913, includes the \$15 per acre supplemental construction charge.
- 1927, January 2: Contract Ilr-102 with Huntley project irrigation district. District assumes obligations under individual water-right applications, assumes obligation for certain costs incurred not covered by public notices, and assumes obligation for additional drainage work. Extends repayment period to 40 years. Extends time for payment of delinquent construction and operation and maintenance charges. Supplemental construction charges to be paid in 10 years after regular construction charges.
- 1952, April 10: Contract I79r-2353 with State of Montana for \$520.71.
- 1955, July 11: Contract 14-06-600-1558 with Worden Community Water Users Association, Inc., for \$2,240.00.
- 1957, January 4: Contract 14-06-600-2140 with Huntley project irrigation district for \$100,000 to rehabilitate and repair the Diversion Dam. Repayment to be successive annual installments of \$5,000 beginning in 1960 and to continue until the full amount expended is repaid.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1908		\$32,027		\$32,027	\$31,082		\$31,082	\$31,082
1909		10,083		10,083	10,083	\$945	11,028	42,110
1910		45,063		45,063	16,209		16,209	58,319
1911		57,769		57,769	20,136	20,918	41,054	99,373
1912		64,088	¹ \$7,060	57,028	13,604	37,462	51,066	150,439
1913		67,065	¹ 2,279	64,786	9,660	44,899	54,559	204,998
1914 ³		67,595	¹ 28,133	39,462	7,050	18,644	25,694	230,692
1915 ³	\$751,109	¹ 15,626	¹ 38,143	¹ 53,769	11,704	4,237	15,941	246,633
1916	861,164	14,996	2,275	17,271	11,387	6,375	17,762	264,395
1917	1,248,216			11,231			10,472	274,867
1918	1,277,356			6,301			6,891	281,758
1919	1,310,317			13,697			14,273	296,031
1920	1,320,393			13,914			14,178	310,209
1921	1,332,489			23,247			18,614	328,823
1922	1,324,280	28,504	¹ 2,404	26,100	13,849	460	14,309	343,132
1923	1,320,616	29,034	¹ 1,317	27,717	10,196	6,302	16,498	359,630
1924	1,314,490	29,690	⁴ 4,687	25,003	13,150	4,389	17,539	377,169
1925	1,340,449	32,319	¹ 941	31,378	16,228	2,353	18,581	395,750
1926	1,346,195	33,731	¹ 397	33,334	18,030	10,416	28,446	424,196
1927	1,393,941	4,590	¹ 47,061	¹ 42,471	3,110	6,893	10,003	434,199
1928	1,390,407	5,112	¹ 4,937	175	5,112	35	5,147	439,346
1929	² 1,790,365	87,109		87,109	87,109		87,109	526,455
1930	1,803,806	5,466		5,466	5,466		5,466	531,921
1931	1,823,831	9,463		9,463	9,107		9,107	541,028
1932 ⁴	1,829,729	9,130		9,130	8,932	356	9,288	550,316
1933 ⁴	1,818,663	6,450		6,450	6,340	170	6,510	556,826
1934 ⁴	1,818,682	1,018		1,018	939	138	1,077	557,903
1935 ⁴	1,825,835	1,154		1,154	1,154	79	1,233	559,136
1936 ⁴	1,832,115	1,704		1,704	1,621		1,621	560,757
1937 ⁴	1,832,853	10,907		10,907	10,659	83	10,742	571,499
1938	1,832,853	17,344		17,344	16,553	248	16,801	588,300
1939	1,832,853	17,692		17,692	16,887	791	17,678	605,978
1940	1,838,409	17,337		17,337	16,482	805	17,287	623,265
1941	1,838,409	16,478		16,478	16,079	855	16,934	640,199
1942	1,838,409	15,788		15,788	15,611	399	16,010	656,209
1943	1,838,409	15,705		15,705	15,649	177	15,826	672,035
1944	1,838,409	15,034		15,034	14,952	56	15,008	687,043
1945	1,831,915	14,035		14,035	13,974	82	14,056	701,099
1946	1,831,915	14,455		14,455	14,455	61	14,516	715,615
1947	1,831,915	11,905		11,905	11,905		11,905	727,520
1948	1,831,915	12,050		12,050	12,050		12,050	739,570
1949	1,831,915	29,837		29,837	29,837		29,837	769,407
1950	1,837,434	32,245		32,245	32,245		32,245	801,652
1951	1,837,434	34,727		34,727	34,727		34,727	836,379
1952	1,837,434	38,167		38,167	38,167		38,167	874,546
1953	1,837,434	38,123		38,123	38,123		38,123	912,669
1954	1,837,434	38,941		38,941	38,941		38,941	951,610
1955	1,837,434	39,056		39,056	39,056		39,056	990,666
1956	1,839,546	38,192		38,192	38,192		38,192	1,028,858
1957	1,939,674	38,810		38,810	38,810		38,810	1,067,668
Total		1,202,752	-135,084	1,067,668	899,040	168,628	1,067,668	
Collected				1,067,668				
Uncollected				0				

¹ Decrease. Decreases cover cancellations of water-right applications and funding of delinquent charges.

² Obligations increased by provisions of 1927 contract. District assumed obligation for certain costs not covered by public notices.

³ 1914. Reclamation Extension Act of Aug. 13, 1914.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$23,735; 1932, \$27,960; 1933, \$14,293; 1934, \$14,870; 1935, \$15,262; 1936, \$7,318.

Determination of repayment obligation as of
June 30, 1957:

Total irrigation plant costs.....	\$1, 745, 066
Estimated cost rehabilitation Diversion Dam.....	100, 000
Operation and maintenance funded: Total deficit.....	\$443, 304
Less deficit incurred prior to Recla- mation Extension Act, written off by act of May 26, 1926.....	81, 354
	361, 950
Other charges funded—property transfers..	16, 949
Interest and penalties funded.....	29, 117
Total costs.....	2, 253, 082
Less:	
Contributed funds.....	\$718
Nonreimbursable costs—CCC contribution.....	223, 564
Water users' equity.....	6, 436
Chargeoff, act of May 25, 1926.....	62, 050
	292, 768
Gross obligation.....	1, 960, 314
Less cost in excess of contracted returns:	
Income accruing to the United States.....	\$112, 564
Less interest and penalties, construction charge forfei- tures and sale CCC build- ings.....	96, 630
Net income June 30, 1957..	15, 934
Additional adjustment.....	4, 706
	20, 640
Contracted obligation.....	1, 939, 674

The summary of status of repayment con-
tracts:

Total value of contracted repayment.....	\$1, 939, 674
Total matured charges.....	1, 067, 668
Total matured charges repaid.....	1, 067, 668
Total matured charges unpaid.....	0

Payout schedule

Fiscal year	Prior division	Eastern and Fly Creek divisions	Total
Contract obligation:			
Paying lands.....	\$1, 180, 581	\$204, 910	\$1, 385, 491
Suspended lands.....	508, 703	45, 480	554, 183
Total amount repayable.....	1, 689, 284	250, 390	1, 939, 674
Cumulative through			
1957.....	929, 123	138, 545	1, 067, 668
1958.....	34, 665	1, 890	36, 555
1959.....	20, 932	1, 554	22, 486
1960.....	22, 128	2, 225	24, 353
1961.....	20, 708	2, 113	22, 821
1962.....	17, 128	1, 948	19, 076
1963.....	15, 869	1, 948	17, 817
1964.....	12, 211	1, 948	14, 159
1965.....	9, 529	2, 492	12, 021
1966.....	8, 331	4, 915	13, 246
1967.....	7, 795	5, 861	13, 656
1968.....	7, 604	6, 668	14, 272
1969.....	7, 631	7, 292	14, 923
1970.....	7, 713	7, 043	14, 756
1971.....	7, 576	4, 958	12, 534
1972.....	7, 443	2, 510	9, 953
1973.....	6, 869	1, 655	8, 524
1974.....	6, 679	1, 065	7, 744
1975.....	6, 265	778	7, 043
1976.....	5, 948	779	6, 727
1977.....	5, 791	728	6, 519
1978.....	5, 461	681	6, 142
1979.....	5, 126	681	5, 807
1980.....	733	11	744
1981.....	627	11	638
1982.....	553	11	564
1983.....	399	19	418
1984.....	265	19	284
1985.....	179	19	198
1986.....	51	29	80
1987.....	52	29	81
1988.....	24	14	38
Adjustments.....	(827)	4, 471	3, 644

HYRUM PROJECT

WELLSVILLE, UTAH

The construction of Hyrum project in southern Cache County, Utah, was authorized under subsection B of section 4 of the act of December 5, 1924 (43 Stat. 701), by approval of the President, November 6, 1935.

The project furnishes supplemental water to an area of about 6,800 irrigable acres. Project features include the Hyrum Dam and Reservoir on the Little Bear River, a diversion dam on the East Fork of the Little Bear River, the Hyrum-Mendon Canal, the Wellsville Canal, and the Hyrum Feeder Canal.

The total cost of constructing the project features was \$953,854. Of this amount, \$11,885 was contributed funds not repayable. The balance, plus \$2,077 of operation and maintenance funded, is repayable by the South Cache Water Users Association.

Operation and maintenance of the project was transferred to the South Cache Water Users Association May 1, 1936.

CONTRACTS

1933, October 9: Contract Ilr-745 with South Cache Water Users Association provided for payment of construction cost in 40 equal annual installments.

1941, December 31: Amendatory contract with South Cache Water Users Association rescheduled installments on a graduated basis within a 40-year period. All except the first four payments are sub-

ject to the normal and percentages variable repayment plan.

1950, May 24: Amendatory contract with South Cache Water Users Association schedules the remaining construction obligation, \$769,000, over a period of 47 years with all installments subject to the normal and percentages variable repayment plan. Base annual installments: \$17,240 through year 1970; \$16,155 from year 1971 through 1995, when payment will be completed. This contract, negotiated pursuant to section 7 of the Reclamation Project Act of 1939, was approved by special congressional act of August 5, 1950.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$944, 046
Total matured charges.....	291, 934
Total matured charges repaid.....	291, 934
Total matured charges unpaid.....	0

The cost and repayment allocations:

Total project cost.....	\$953, 854
Allocation of costs—Irrigation:	
Reimbursable by water users.....	941, 970
Contributions.....	11, 884
Total.....	953, 854

Repayment of reimbursable costs:

From irrigation water users for irrigation plant investment.....	941, 970
Operation and maintenance funded.....	2, 076
Total.....	944, 046

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1935	\$930,000							
1936	930,000							
1937	930,000							
1938	930,000							
1939	930,000							
1940	930,000	\$23,250		\$23,250				
1941	930,000	23,250		23,250	\$5,967		\$5,967	\$5,967
1942	930,000	9,300	¹ \$46,500	¹ 37,200	3,333		3,333	9,300
1943	930,000	9,300		9,300	6,716		6,716	16,016
1944	930,000	9,300		9,300	9,300		9,300	25,316
1945	930,000	9,300		9,300	9,300		9,300	34,616
1946	930,000	26,970		26,970	26,970		26,970	61,586
1947	930,000	26,970		26,970	26,970		26,970	88,556
1948	930,000	30,225		30,225	30,225		30,225	118,781
1949	930,000	27,900		27,900	27,900		27,900	146,681
1950	930,000	28,365		28,365	28,365		28,365	175,046
1951	² 944,046	15,861	-2,584	13,277	15,861		15,861	190,907
1952	944,046	17,930		17,930	17,930		17,930	208,837
1953	944,046	17,585		17,585	17,585		17,585	226,422
1954	944,046	16,550		16,550	16,550		16,550	242,972
1955	944,046	13,792		13,792	13,792		13,792	256,764
1956	944,046	17,240		17,240	17,240		17,240	274,004
1957	944,046	17,930		17,930	17,930		17,930	291,934
Total		341,018	-49,084	291,934	291,934		291,934	
Collected				291,934				
Uncollected				0				

¹ Decrease. Adjustment of accruals to conform to terms of 1941 contract.² Increase. Adjustments to conform to terms of 1950 amendatory contract.

INTAKE PROJECT

SIDNEY, MONTANA

The Intake project was found feasible by the Secretary on October 11, 1943, and approved by the President on January 20, 1944, under the terms of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended.

Project works, to supply water to approximately 880 acres in Dawson County, Mont., consist of an electric motor and 2 pumps. Each pump serves a lateral lifting water 10 and 16 feet, respectively. There are 1.5 miles of drains.

A repayment contract executed on March 30, 1945, provides that the Intake irrigation district will repay \$46,900 of the total construction cost over a period of 40 years starting in 1951. The transmission line and substation for the project

have been constructed as part of the Fort Peck project in accordance with the authorization.

The project is operated by the Board of Control of the Lower Yellowstone project, with funds advanced by the Intake irrigation district.

CONTRACT

1945, March 30: Contract Ilr-1436 with Intake irrigation district for \$46,900, repayable in 40 years.

The repayment obligation is summarized as follows:

Gross project cost.....	\$94, 213
Total repayment obligation.....	¹ 46, 900
Nonreimbursable.....	47, 313

¹ Pursuant to original finding of feasibility.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1952.....	\$46, 900	\$235	-----	\$235	\$235	-----	\$235	\$235
1953.....	46, 900	465	-----	465	232	-----	232	467
1954.....	46, 900	675	-----	675	570	-----	570	1, 037
1955.....	46, 900	865	-----	865	1, 203	-----	1, 203	2, 240
1956.....	46, 900	1, 225	-----	1, 225	1, 225	-----	1, 225	3, 465
1957.....	46, 900	1, 241	-----	1, 241	1, 241	-----	1, 241	4, 706
Total.....	-----	4, 706	-----	4, 706	4, 706	-----	4, 706	-----
Collected.....	-----	-----	-----	4, 706	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	0	-----	-----	-----	-----

KENDRICK PROJECT

WYOMING

The Kendrick project in Carbon and Natrona Counties, Wyo., was authorized by a finding of feasibility approved by the President August 30, 1935. The Alcova powerplant was authorized August 22, 1950, as an incremental addition under provisions of section 9 (a) of the Reclamation Project Act of 1939 (53 Stat. 1187).

The major project features include the Seminoe Dam, Reservoir, and powerplant—primarily for water storage and power production, the Alcova Dam, Reservoir, and powerplant—primarily for diversion of irrigation water from the North Platte River and for power production, the Casper Canal, laterals, and drainage facilities, and a power transmission system.

The tentative cost and repayment allocations:

Estimated project cost (excluding second unit).....	\$31, 390, 761
Allocation of costs:	
Irrigation.....	15, 115, 827
Power.....	16, 274, 934
Total reimbursable.....	31, 390, 761
Repayment of costs:	
From power revenues:	
Electric plant investment.....	16, 274, 934
Irrigation investment.....	14, 515, 827
Subtotal.....	30, 790, 761
From irrigation water users ¹	600, 000
Total repayment by project.....	31, 390, 761

¹ Irrigation data projected from amendatory contract authorized by act of Sept. 4, 1957.

The Kendrick project lands are comprised in two units initially planned for the irrigation of 66,000 acres of land in the Casper-Alcova irrigation

district. Planning refinements and reclassification of the land has reduced this total to 39,500 acres. The aforementioned project works have been completed, with the exception of certain drainage facilities, to serve the first unit containing 23,000 irrigable acres. Except for capacity in the Casper Canal, construction of irrigation facilities has been confined to the first unit of the project.

Project hydroelectric power production began at the Seminoe 32,400-kilowatt plant in August 1939, and at the Alcova 36,000-kilowatt plant in July 1955. Power production is integrated into the MRB western division power system. Initial deliveries of irrigation water were made in 1946. The United States has operated the irrigation works during the construction period on a water rental basis. It will continue to operate the dams, reservoirs, and power facilities, but the care, operation and maintenance of the canal, laterals and drainage works will be taken over by the Casper-Alcova irrigation district January 1, 1958.

Repayment contracts.—The original repayment contract made August 3, 1935, with the Casper-Alcova irrigation district, covering the first unit, has long been deemed unworkable. It was based on an irrigable area of 35,000 acres which has since been reduced to 23,000 acres and preliminary payment capacity estimates which have since been found excessive. An amendatory contract was approved by the district April 27, 1957, and its execution authorized by act of Congress September 4, 1957 (71 Stat. 608). As amended, the contract will provide for the district to (a) operate and maintain the canal, laterals, and drainage work, including the construction of future drains as required, at no expense to the United States beginning January 1, 1958; (b) advance \$10,000 per

Subtotal_

Fiscal year	Power					Irrigation ¹		Recapitulation		
	Repayment components of net power revenues		Investment repayment from power revenues, plant in service at end of year			Net revenue from water users	Investment repayment		Net project revenues	Earned surplus (cumulative)
	Interest	Principal	Interest bearing		Interest free					
			Electric plant	Balance to be repaid	Irrigation plant		Balance to be repaid			
Net operating revenue							Plant in service at end of year	Interest free balance to be repaid		
1940	\$61, 814	\$124, 580	— \$62, 766	\$4, 152, 672	\$4, 152, 672					\$61, 814
1941	108, 213	157, 636	— 49, 423	5, 191, 776	5, 234, 542					108, 213
1942	212, 260	167, 714	44, 546	5, 478, 281	5, 590, 470					212, 260
1943	178, 592	167, 956	10, 636	5, 530, 898	5, 598, 541					178, 592
1944	356, 155	169, 683	186, 472	5, 599, 088	5, 656, 095					356, 155
1945	333, 243	164, 120	169, 123	5, 600, 127	5, 470, 662					333, 243
1946	487, 406	160, 539	326, 867	5, 649, 874	5, 351, 286					487, 406
1947	456, 827	151, 045	305, 782	5, 660, 295	5, 754, 785					456, 827
1948	553, 353	144, 706	408, 647	6, 171, 587	4, 831, 705					553, 353
1949	498, 672	144, 951	353, 721	6, 447, 617	4, 754, 012					498, 672
1950	620, 982	142, 620	478, 362	7, 501, 073	5, 329, 106					620, 982
1951	504, 778	159, 873	344, 905	7, 599, 705	5, 082, 833					504, 778
1952	725, 510	152, 485	573, 025	7, 927, 352	4, 837, 455					725, 510
1953	528, 500	145, 124	383, 376	9, 480, 255	6, 006, 982					528, 500
1954	485, 212	180, 209	305, 003	9, 657, 695	5, 879, 419					485, 212
1955	622, 177	176, 383	445, 794	15, 876, 098	11, 652, 028					622, 177
1956	433, 066	349, 561	83, 505	16, 231, 707	11, 924, 132					433, 066
Subtotal	7, 166, 760	2, 859, 185	4, 307, 575	16, 231, 707	11, 924, 132	\$14, 515, 827	\$14, 515, 827	\$600, 000	\$600, 000	7, 166, 760
1957	561, 372	357, 724	203, 648	16, 274, 934	11, 763, 711	14, 515, 827	14, 515, 827	600, 000	600, 000	561, 372
1958	551, 900	352, 911	198, 989	16, 274, 934	11, 564, 722	14, 515, 827	14, 515, 827	600, 000	590, 000	551, 900
1959	665, 300	346, 942	318, 358	16, 274, 934	10, 918, 455	14, 515, 827	14, 515, 827	600, 000	580, 000	665, 300
1960	665, 300	337, 391	327, 909	16, 274, 934	10, 918, 455	14, 515, 827	14, 515, 827	600, 000	570, 000	665, 300
1961	665, 300	327, 554	337, 746	16, 274, 934	10, 580, 709	14, 515, 827	14, 515, 827	600, 000	560, 000	665, 300
1962	665, 300	317, 421	347, 879	16, 274, 934	10, 232, 830	14, 515, 827	14, 515, 827	600, 000	550, 000	665, 300
1963	665, 300	306, 985	358, 315	16, 274, 934	9, 874, 515	14, 515, 827	14, 515, 827	600, 000	540, 000	665, 300
1964	665, 300	296, 235	369, 065	16, 274, 934	9, 505, 450	14, 515, 827	14, 515, 827	600, 000	530, 000	665, 300
1965	665, 300	285, 164	380, 136	16, 274, 934	9, 125, 314	14, 515, 827	14, 515, 827	600, 000	520, 000	665, 300
1966	665, 300	273, 759	391, 541	16, 274, 934	8, 733, 773	14, 515, 827	14, 515, 827	600, 000	510, 000	665, 300
1967	665, 300	262, 013	403, 287	16, 274, 934	8, 330, 486	14, 515, 827	14, 515, 827	600, 000	500, 000	665, 300
1968	665, 300	249, 915	415, 385	16, 274, 934	7, 915, 101	14, 515, 827	14, 515, 827	600, 000	490, 000	665, 300
1969	665, 300	237, 453	427, 847	16, 274, 934	7, 487, 254	14, 515, 827	14, 515, 827	600, 000	480, 000	665, 300
1970	665, 300	224, 618	440, 682	16, 274, 934	7, 046, 572	14, 515, 827	14, 515, 827	600, 000	470, 000	665, 300
1971	665, 300	211, 397	453, 903	16, 274, 934	6, 592, 669	14, 515, 827	14, 515, 827	600, 000	460, 000	665, 300
1972	665, 300	197, 780	467, 520	16, 274, 934	6, 125, 149	14, 515, 827	14, 515, 827	600, 000	450, 000	665, 300
1973	665, 300	183, 754	481, 546	16, 274, 934	5, 643, 603	14, 515, 827	14, 515, 827	600, 000	440, 000	665, 300
1974	665, 300	169, 308	495, 992	16, 274, 934	5, 147, 611	14, 515, 827	14, 515, 827	600, 000	430, 000	665, 300
1975	665, 300	154, 428	510, 872	16, 274, 934	4, 636, 739	14, 515, 827	14, 515, 827	600, 000	420, 000	665, 300
1976	665, 300	139, 102	526, 198	16, 274, 934	4, 110, 541	14, 515, 827	14, 515, 827	600, 000	410, 000	665, 300
1977	665, 300	123, 316	541, 984	16, 274, 934	3, 568, 557	14, 515, 827	14, 515, 827	600, 000	400, 000	665, 300
1978	665, 300	107, 057	558, 243	16, 274, 934	3, 010, 314	14, 515, 827	14, 515, 827	600, 000	390, 000	665, 300
1979	665, 300	90, 309	574, 991	16, 274, 934	2, 435, 323	14, 515, 827	14, 515, 827	600, 000	380, 000	665, 300
1980	665, 300	73, 060	592, 240	16, 274, 934	1, 843, 083	14, 515, 827	14, 515, 827	600, 000	370, 000	665, 300
1981	665, 300	55, 292	610, 008	16, 274, 934	1, 233, 075	14, 515, 827	14, 515, 827	600, 000	360, 000	665, 300
1982	665, 300	36, 992	628, 308	16, 274, 934	604, 767	14, 515, 827	14, 515, 827	600, 000	350, 000	665, 300

1983-----	18, 143	604, 767	16, 274, 934	0	14, 515, 827	14, 473, 437	10, 000	600, 000	340, 000	675, 300	0
1984-----	0	0	16, 274, 934	0	14, 515, 827	13, 808, 137	10, 000	600, 000	330, 000	675, 300	0
1985-----	0	0	16, 274, 934	0	14, 515, 827	13, 142, 837	10, 000	600, 000	320, 000	675, 300	0
1986-----	0	0	16, 274, 934	0	14, 515, 827	12, 477, 537	10, 000	600, 000	310, 000	675, 300	0
1987-----	0	0	16, 274, 934	0	14, 515, 827	11, 812, 237	10, 000	600, 000	300, 000	675, 300	0
1988-----	0	0	16, 274, 934	0	14, 515, 827	11, 146, 937	10, 000	600, 000	290, 000	675, 300	0
1989-----	0	0	16, 274, 934	0	14, 515, 827	10, 481, 637	10, 000	600, 000	280, 000	675, 300	0
1990-----	0	0	16, 274, 934	0	14, 515, 827	9, 816, 337	10, 000	600, 000	270, 000	675, 300	0
1991-----	0	0	16, 274, 934	0	14, 515, 827	9, 151, 037	10, 000	600, 000	260, 000	675, 300	0
1992-----	0	0	16, 274, 934	0	14, 515, 827	8, 485, 737	10, 000	600, 000	250, 000	675, 300	0
1993-----	0	0	16, 274, 934	0	14, 515, 827	7, 820, 437	10, 000	600, 000	240, 000	675, 300	0
1994-----	0	0	16, 274, 934	0	14, 515, 827	7, 155, 137	10, 000	600, 000	230, 000	675, 300	0
1995-----	0	0	16, 274, 934	0	14, 515, 827	6, 489, 837	10, 000	600, 000	220, 000	675, 300	0
1996-----	0	0	16, 274, 934	0	14, 515, 827	5, 824, 537	10, 000	600, 000	210, 000	675, 300	0
1997-----	0	0	16, 274, 934	0	14, 515, 827	5, 159, 237	10, 000	600, 000	200, 000	675, 300	0
1998-----	0	0	16, 274, 934	0	14, 515, 827	4, 493, 937	10, 000	600, 000	190, 000	675, 300	0
1999-----	0	0	16, 274, 934	0	14, 515, 827	3, 828, 637	10, 000	600, 000	180, 000	675, 300	0
2000-----	0	0	16, 274, 934	0	14, 515, 827	3, 163, 337	10, 000	600, 000	170, 000	675, 300	0
2001-----	0	0	16, 274, 934	0	14, 515, 827	2, 498, 037	10, 000	600, 000	160, 000	675, 300	0
2002-----	0	0	16, 274, 934	0	14, 515, 827	1, 832, 737	10, 000	600, 000	150, 000	675, 300	0
2003-----	0	0	16, 274, 934	0	14, 515, 827	1, 167, 437	10, 000	600, 000	140, 000	675, 300	0
2004-----	0	0	16, 274, 934	0	14, 515, 827	502, 137	10, 000	600, 000	130, 000	675, 300	0
2005-----	0	0	16, 274, 934	0	14, 515, 827	0	10, 000	600, 000	120, 000	675, 300	163, 163
2006-----	0	0	16, 274, 934	0	14, 515, 827	0	10, 000	600, 000	110, 000	675, 300	828, 463
2007-----	0	0	16, 274, 934	0	14, 515, 827	0	10, 000	600, 000	100, 000	675, 300	1, 493, 763
2008-2017----	0	0	16, 274, 934	0	14, 515, 827	0	100, 000	600, 000	0	100, 000	1, 493, 763
Total-----	40, 879, 732	16, 274, 934	16, 274, 934	0	14, 515, 827	0	600, 000	600, 000	0	41, 479, 732	1, 493, 763

¹ Historical data prior to fiscal year 1957 are not reported. Accounts show a cumulative deficit in irrigation operations of \$36,753 through June 30, 1957. Miscellaneous revenues and contributions total \$48,914 through June 30, 1956.

annum, as its share of the operation and maintenance of the reserved works, following which water will be delivered to the district to the extent of 2 acre-feet per acre irrigation, and (c) pay 50 cents per acre-foot for the delivery of water in excess of 2 acre-feet per acre irrigated until a total of \$600,000 is accumulated as a credit on the construction costs of the project. The enabling act of September 4, 1957, provides an acreage limitation

of 480 acres instead of the 160 acres provided by Reclamation law generally.

CONTRACT

1935, August 3: Contract Ilr-811 with Casper-Alcova irrigation district; district assumed obligation of \$2,800,000 payable in 80 semiannual installments due June 30 and December 31 in the year following issue of public notice by the Secretary of Interior that water is available.

KING HILL PROJECT

KING HILL, IDAHO

The King Hill project was promoted under the Carey Act in 1908. The Secretary determined the project practicable July 2, 1917, pursuant to Appropriation Act of June 12, 1917 (40 Stat. 105, 148), but it was not a success. In 1917 the Bureau of Reclamation undertook repair and reconstruction work on the irrigation system of the project as a war measure to increase crop production. The King Hill irrigation district contracted with the United States to repay a total obligation of \$2 million but was subsequently unable to make payments.

The project was difficult and costly to operate, the soils were low in fertility, and the farmers were not prosperous. The District took over operation and maintenance in 1926, but was unable to collect sufficient money to keep the system in repair. In 1929 a committee which made an economic survey of certain Reclamation projects concluded that the King Hill project was an insolvent enterprise and recommended

that no further expenditures be made and that the entire indebtedness owing by the King Hill Irrigation District to the United States be written off.

The act of June 18, 1934 (48 Stat. 980), authorized the Secretary of the Interior to enter into a contract with the King Hill irrigation district, by which the District and the United States would rescind previous agreements and be released from all obligations, and the United States would convey to the District all of its interest in the King Hill project, including water rights and any real estate acquired or held.

The United States entered into such a contract on September 28, 1934, with the King Hill irrigation district. The amount of \$1,987.854.04 has been charged off as a loss to the Reclamation Fund.

The King Hill irrigation district is now operating the area as a private project.

KLAMATH PROJECT

OREGON-CALIFORNIA

The Secretary of the Interior authorized the Klamath project on May 15, 1905. Construction work started in 1906, and water was delivered to lands of the first unit on May 16, 1907. In succeeding years the area of land receiving water has been constantly increasing until now the lands served total approximately 217,000 acres. Full irrigation supplies are available to approximately 133,000 acres of project lands, with the balance supplied under the Warren Act and other special contracts.

The irrigable lands of the project are located

in Klamath County in south-central Oregon, and Siskiyou and Modoc Counties in north-central California. The project works supply irrigation water to the project lands and also provide flood control on Lost River for the protection of lands in the Tule Lake Basin which originally received all of the flow of Lost River. The project water supply comes from three storage reservoirs—Clear Lake, Gerber, and Upper Klamath Lake, which have a total capacity of 1,494,400 acre-feet.

Determination of repayment obligation

Item	Total	Tule Lake division			Main division	Pumping division	Bonanza Springs division	Langell Valley division	Supplemental services division	Lower Klamath Lake division
		Original	Modoc unit	Total						
Total project cost.....	\$21,060,014	\$3,046,328	\$12,766,198	\$15,812,526	\$2,582,026	\$475,816	\$38,350	\$920,208	\$104,060	\$1,127,028
Operation and maintenance funded.....	65,166				65,166					
Interest and penalties funded.....	19,133	326		326	15,444	1,279	363	947		774
Rehabilitation and betterment.....	40,200							40,200		
W/R on rights-of-way.....	31,136	176		176	30,960					
Chargeoff by Congress.....	(94,743)				(63,474)			(31,269)		
Contributions.....	(413,599)	(540)	(246)	(786)	(344,177)				(68,636)	
Resurvey of irrigable lands.....	(897)				(897)					
Net reimbursable amount.....	20,706,410	3,046,290	12,765,952	15,812,242	2,285,048	477,095	38,713	930,086	35,424	1,127,802
Returnable by lease revenue and other nonoperating revenue.....	12,939,347			11,896,121	9,701				4,557	1,028,968
Contracted.....	7,799,544	3,805,131	110,990	3,916,121	2,275,347	504,469	38,713	935,193	30,867	98,834
Adjustments.....	(32,481)					(27,374)		(5,107)		

LANGELL VALLEY DIVISION

The United States has constructed irrigation works, including Clear Lake and Gerber Reservoirs, for the irrigation of lands in the Horsefly irrigation district and the Langell Valley irrigation district.

The districts which comprise the Langell Valley division have contracted to repay a total of \$935,192. Repayments began in 1928 and as of June 30, 1957, \$337,468 had become due and \$387,445 had been paid.

Moratoriums have extended the original repayment period to 1979. Certain lands were placed

in class 6 pursuant to the act of May 25, 1926 and these construction charges have been charged off as a loss to the Reclamation fund.

The districts operate the distribution systems and the United States operates the reservoirs.

Determination of repayment obligation as of June 30, 1957:

Cost.....	\$966,443
Penalty funded.....	947
Less chargeoff.....	31,269
Net.....	936,121
Adjustment to be made.....	929
Total.....	935,192

CONTRACTS

1922, March 27: Contract 11r-112 with Horsefly Irrigation district and Langell Valley irrigation district for construction of irrigation system for lands in Langell Valley. Estimated cost \$474,000, payable in 40 semiannual graduated installments.

1923, June 18: Contract with Langell Valley irrigation district for construction of Gerber Reservoir and additional irrigation works at estimated cost of \$700,000, payable in 40 semiannual graduated installments.

1927, July 1: Contract with Langell Valley irrigation district. Extended repayment period to 40 years

and provided for actual expenditures of \$40,200 for drainage.

1929, May 7: Contract with Horsefly irrigation district extending repayment period to 39 years.

1931, April 13: Contract with Horsefly irrigation district and Langell Valley irrigation district. Contract provides for dredging Clear Lake channel and construction of Dry Lake pumping plant.

1951, May 17: Contract with Langell Valley irrigation district for inclusion of lands and adjustment of water rights.

1953, November 13: Contract with Langell Valley irrigation district for rehabilitation and betterment in the amount of \$40,200.26.

Construction repayment history—Langell Valley division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1923	\$474,000							
1924	1,174,000							
1925	1,204,400							
1926	1,204,400							
1927	1,204,400							
1928	938,094	\$4,969		\$4,969	\$2,658		\$2,658	\$2,658
1929	938,094	9,215		9,215	2,982	\$2,312	5,294	7,952
1930	938,094	8,492		8,492	0	6,233	6,233	14,185
1931	938,094	8,491		8,491	0	4,042	4,042	18,227
1932 ²	955,426	7,693		7,693	0	2,712	2,712	20,939
1933 ²	955,731	2,672	³ \$18,221	³ 15,549	668		668	21,607
1934 ²	926,587	327	³ 2,043	³ 1,716	160	³ 339	³ 179	21,428
1935 ²	927,778	5,879		5,879	144	1,403	1,547	22,975
1936 ²	926,262	444	³ 3,183	³ 2,739	444	1,316	1,760	24,735
1937 ²	926,262	7,988		7,988	7,042		7,042	31,777
1938	926,262	8,921	³ 3,776	5,145	5,145	946	6,091	37,868
1939	926,262	8,921	³ 685	8,236	8,921	³ 685	8,236	46,104
1940	926,262	8,921		8,921	8,921		8,921	55,025
1941	926,262	9,999		9,999	9,999		9,999	65,024
1942	926,262	11,927		11,927	11,927		11,927	76,951
1943	926,262	12,776		12,776	12,776		12,776	89,727
1944	926,262	12,777		12,777	12,777		12,777	102,504
1945	926,262	12,776		12,776	7,443		7,443	109,947
1946	926,262	13,494		13,494	7,706	5,333	13,039	122,986
1947	926,262	17,704		17,704	10,594	5,788	16,382	139,368
1948	926,262	17,145		17,145	8,620	7,110	15,730	155,098
1949	926,262	17,604		17,604	17,604	8,525	26,129	181,227
1950	926,262	17,220		17,220	16,084		16,084	197,311
1951	⁴ 894,992	34,528		34,528	25,404	1,136	26,540	223,851
1952	894,992	22,161		22,161	22,161	9,124	31,285	255,136
1953	894,992	23,637		23,637	23,637		23,637	278,773
1954	⁵ 959,992	30,617		30,617	30,617		30,617	309,390
1955	⁶ 935,192	26,717		26,717	26,717		26,717	336,107
1956	935,192	15,437		15,437	15,414		15,414	351,521
1957	935,192	35,924		35,924	35,924		35,924	387,445
Total		415,376	³ — 27,908	387,468	332,489	54,956	387,445	
Collected				387,445				
Uncollected				23				

¹ Decrease in obligation due to adjustment of estimated cost to actual cost.
² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$5,121; 1931, \$4,328; 1932, \$3,954; 1933, \$9,335; 1934, \$3,941; 1935, \$3,522; 1936, \$2,366; 1937, \$4,461 under act of Aug. 21, 1937

³ Decrease. Decreases are due to deferral of charges under the relief acts.
⁴ Decrease. Due to chargeoff for land classification.
⁵ Increase. Execution of rehabilitation contract.
⁶ Decrease. Adjustment of rehabilitation contract to actual costs.

*Operation and maintenance assessments history—
Langell Valley division*

Fiscal year	Accruals	Collections
1923		
1924		
1925		
1926		
1927		
1928	\$643	\$643
1929	1,389	1,389
1930	1,657	1,657
1931	1,624	1,624
1932	1,760	1,760
1933	1,565	1,565
1934	1,678	1,678
1935	843	843
1936	1,163	1,163
1937	1,231	1,231
1938	1,140	1,140
1939	1,604	1,604
1940	1,880	1,880
1941	1,750	1,750
1942	1,625	1,625
1943	1,650	1,650
1944	1,925	1,925
1945	2,275	2,275
1946	2,650	2,650
1947	3,080	3,080
1948	3,080	3,080
1949	3,210	3,210
1950	3,340	3,340
1951	3,540	3,540
1952	3,740	3,740
1953	5,072	5,072
1954	5,952	5,952
1955	5,932	5,932
1956	5,620	5,620
1957	4,804	4,804
Total	77,422	77,422

MAIN DIVISION

The Klamath irrigation district and individual water-right applicants have contracted obligations of \$2,275,348 to repay the United States. Repayments began in 1909. As a result of the passage of the Omnibus Adjustment Act in 1926, the district's obligation was rescheduled in a contract providing for payment over a 40-year period, replacing the individual water-right applications. A total of \$1,935,557 had become due and paid at the close of fiscal year 1957.

The division has been operated by the Klamath irrigation district since January 1, 1955.

Determination of repayment obligations as of June 30, 1957:

Gross cost	\$2,692,072
Operation and maintenance funded	65,166
Interest funded	15,444

Total	2,772,682
Less:	
Construction revenues	21,464
Contributions	344,177
Chargeoff	63,474
Net	2,343,567
Adjustment to be made	68,219
Total	2,275,348

PUBLIC NOTICES AND CONTRACTS

- 1908, November 18: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.
- 1915, September 15: Public notice. Supplemental construction covering drainage work. \$12.50 per acre payable additional installments after 20-year repayment period.
- 1917, February 12: Public notice for second unit. Construction charge \$30 per acre, payable in 20 graduated annual installments.
- 1917, March 31: Public notice for third unit. Construction charge \$39 and \$45 per acre, payable in 20 graduated annual installments.
- 1918, July 16: Contract with Klamath irrigation district. District assumed obligations under individual water-right applications.
- 1920, June 28: Contract with Klamath irrigation district. Supplemental construction covering concrete lining of the "C" canal, cost \$175,000, payable in four semiannual installments, beginning in 1937 (for lands outside unit 1) and 1941 (for lands within unit 1).
- 1922, September 29: Public notice for Tule Lake division. Construction charge \$90 per acre, payable in 20 graduated annual installments.
- 1927, June 25: Contract with Klamath irrigation district extending repayment period to 40 years.
- 1928, November 24: Contract with Klamath irrigation district for construction of drainage works at estimated cost of \$300,000 payable in semiannual installments, 1938 to 1956.
- 1937, September 30: Contract with Enterprise irrigation district for license to use power site on "C" canal. Obligation \$7,732, payable in 30 years.
- 1950, June 2: Contract with Klamath irrigation district for construction of pumping plants and enlargement of C-4 lateral at estimated cost of \$150,000, payable in semiannual installments, 1952 to 1961. Actual costs and amount to be repaid \$146,621.11.
- 1954, November 29: Contract for transfer operation and maintenance.

Construction repayment history—Main division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1909		\$82,653		\$82,653	\$165		\$165	\$165
1910		61,979		61,979		\$65,449	65,449	65,614
1911		83,594		83,594	677	73,939	74,616	140,230
1912		79,301		79,301	282	66,128	66,410	206,640
1913		71,823		71,823	984	48,123	49,107	255,747
1914		74,157	¹ \$59,938	14,219	2,131	6,178	8,309	² 264,056
1915	\$788,374	2,871	¹ 114,300	¹ 111,429	119	12,777	12,896	² 276,952
1916	790,171	14,953	¹ 2,522	12,431	10,911	2,348	13,259	290,211
1917	³ 1,364,127			8,699			10,468	300,679
1918	1,584,281			39,376			39,991	340,670
1919	1,640,166	154,856		30,400	118,951		10,397	351,067
1920	1,643,837			35,972			33,890	384,957
1921	⁴ 1,818,438			40,409			24,205	409,162
1922	1,820,743	23,680		23,680	17,542	22,737	40,279	449,441
1923	1,876,002	52,937	¹ 291	52,646	26,635	22,199	48,834	498,275
1924	1,862,904	54,992	¹ 6,500	48,492	26,274	20,848	47,122	545,397
1925	1,862,861	57,115	12	57,127	29,042	28,731	57,773	603,170
1926	1,864,235	58,052	¹ 1,456	56,596	15,483	26,731	42,214	645,384
1927	1,867,509	39,352	¹ 9,601	29,751	29,231	32,986	62,217	707,601
1928	1,859,905	36,886	¹ 6,616	30,270	16,108	3,500	19,608	727,209
1929	1,853,249	36,421	¹ 1,584	34,837	1,515	13,955	15,470	742,679
1930	⁵ 2,152,209	36,299	¹ 240	36,059	2,103	39,905	42,008	784,687
1931	2,146,303	36,137		36,137	1,280	17,511	18,791	803,478
1932	2,216,607	2,431	¹ 44,757	¹ 42,326	1,494	6,723	8,217	⁶ 811,695
1933	2,206,614	715	¹ 4,042	¹ 3,327	627	¹ 2,989	¹ 2,362	⁶ 809,333
1934	2,207,407	127	¹ 1,165	¹ 1,038	105	¹ 1,130	¹ 1,025	⁶ 808,308
1935	2,209,209	11,413	142	11,555	3,944	7,618	11,562	⁶ 819,870
1936	2,206,738	890	50	940	801	50	851	⁶ 820,721
1937	2,173,665	34,716	¹ 17,895	16,821	14,083	¹ 17,828	¹ 3,745	⁶ 816,976
1938	2,173,665	51,949		51,949	21,172	21,003	42,175	859,151
1939	2,171,871	61,369		61,369	30,741	30,769	61,510	920,661
1940	2,171,871	61,335		61,335	49,578	30,526	80,104	1,000,765
1941	2,172,767	61,286		61,286	30,677	11,798	42,475	1,043,240
1942	2,172,767	61,740		61,740	48,810	30,710	79,520	1,122,760
1943	2,172,767	62,555		62,555	49,644	12,924	62,568	1,185,328
1944	2,172,767	62,586		62,586	55,430	12,652	68,082	1,253,410
1945	2,172,767	62,582		62,582	57,935	7,146	65,081	1,318,491
1946	2,172,767	62,490		62,490	31,451	4,603	36,054	1,354,545
1947	2,169,372	60,748		60,748	60,744	30,994	91,738	1,446,283
1948	2,169,372	62,482		62,482	62,482	4	62,486	1,508,769
1949	2,169,372	51,808		51,808	51,808		51,808	1,560,577
1950	2,172,316	52,508		52,508	52,508		52,508	1,613,085
1951	2,172,316	46,155		46,155	46,155		46,155	1,659,240
1952	⁷ 2,298,361	61,613		61,613	61,613		61,613	1,720,853
1953	2,298,293	56,056		56,056	56,056		56,056	1,776,909
1954	2,276,189	95,754		95,754	95,754		95,754	1,872,663
1955	2,276,189	57,508		57,508	57,508		57,508	1,930,171
1956	2,275,348	52,362		52,362	52,362		52,362	1,982,533
1957	2,275,348	29,662	-76,638	-46,976	29,662	-76,638	-46,976	1,935,557
Total		2,282,898	-347,341	1,935,557	1,322,577	612,980	1,935,557	
Collected				1,935,557				
Uncollected				0				

¹ Decrease. Decreases are due to cancellation of water-right applications and to funding of delinquent charges.

² 1914. Reclamation Extension Act of Aug. 13, 1914, delinquent charges funded.

³ Increase of obligation due to opening of second and third units.

⁴ Increase of obligation due to 1920 contract.

⁵ Increase of obligation due to 1928 contract.

⁶ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$68,135; 1931, \$54,733; 1932, \$28,118; 1933, \$27,155; 1934, \$26,661; 1935, \$26,638; 1936, \$13,376.

⁷ Increase of obligation due to 1950 contract.

*Operation and maintenance assessments history—
Main division*

Fiscal year	Accruals	Collections
1909	\$21, 506	\$14, 534
1910	16, 405	22, 334
1911	23, 089	22, 740
1912	20, 534	19, 495
1913	19, 448	4, 725
1914	18, 417	31, 247
1915	¹ 1, 357	1, 366
1916	31, 685	27, 628
1917	27, 412	28, 328
1918	30, 805	29, 562
1919	46, 938	41, 383
1920	52, 049	32, 531
1921	82, 854	30, 992
1922	37, 643	82, 764
1923	63, 187	49, 923
1924	52, 633	75, 713
1925	60, 054	55, 567
1926	66, 856	57, 767
1927	¹ 11, 845	38, 958
1928	92, 137	42, 357
1929	118, 413	118, 376
1930	110, 757	110, 938
1931	77, 385	77, 407
1932	10, 922	50, 833
1933	49, 349	49, 720
1934	40, 846	40, 912
1935	43, 872	43, 894
1936	44, 072	43, 975
1937	25, 923	25, 918
1938	52, 779	52, 815
1939	54, 972	54, 961
1940	54, 072	54, 074
1941	53, 170	53, 163
1942	53, 174	53, 242
1943	60, 555	60, 528
1944	71, 165	71, 156
1945	78, 435	78, 223
1946	86, 485	86, 673
1947	98, 172	98, 246
1948	98, 372	98, 372
1949	105, 412	105, 412
1950	139, 259	139, 259
1951	246, 148	246, 148
1952	84, 378	84, 378
1953	171, 391	171, 391
1954	177, 903	177, 903
1955	95, 269	95, 269
1956	3, 801	3, 801
1957	8, 285	8, 285
Total	3, 065, 186	3, 065, 186

¹ Decrease.

PUMPING DIVISION

Surrounding and contiguous to the Main division land are some 17,000 irrigable acres which cannot be reached directly by gravity systems. Consequently, five small irrigation districts and 92 individuals have contracted under the Warren Act for the right to pump water, principally from the canals of the Main division. These irrigation districts have contracted with the United States for the repayment of a total of \$504,468 for their

share of the costs of construction allocated to the Pumping division. Repayments due from 1920 to June 30, 1956, total \$253,633, or 51 percent. Collections on the construction accounts to June 30, 1957, have been \$268,122, leaving an unpaid balance of \$539.

Determination of repayment obligation as of June 30, 1957:

Construction cost	\$514, 816
Less revenues	22, 255
Total	492, 561
Adjustments to be made	11, 907
Total	504, 468

CONTRACTS

- 1918, December 21: Contract Ilr-403 with Pine Grove irrigation district for water right for 954 acres at \$16 per acre, payable in 20 graduated annual installments.
- 1920, July 31: Contract Ilr-405 with Upper Van Brimmer drainage district for drainage and betterments in amount of \$28,050, payable in 20 graduated annual installments.
- 1920, October 5: Contract Ilr-399 with Enterprise irrigation district for water right for 2,981 acres at \$16 per acre, payable in 20 graduated annual installments.
- 1922, September 9: Contract Ilr-195 with Malin irrigation district for water right for approximately 4,000 acres at \$34 per acre, payable in 20 annual installments.
- 1922, October 6: Contract with Shasta View irrigation district for water right for 4,200 acres at \$34 per acre, payable in 20 graduated annual installments. Amended by contract of June 29, 1927, reducing acreage to 3,856 and extending repayment period to 40 years.
- 1922, October 24: Contract Ilr-174 with Sunnyside irrigation district for water right for approximately 789 acres at \$34 per acre, payable in 20 annual installments.
- 1927, June 6: Contract with Sunnyside irrigation district extending repayment period to 40 years.
- 1927, July 5: Contract with Malin irrigation district extending repayment period to 40 years.
- 1930, August 5: Contract with Shasta View irrigation district extending time for payment of delinquent charges and penalties.
- 1935, March 18: Contract with Enterprise irrigation district extending repayment period to 40 years. Ninety-two contracts with individual pumpers at \$34 per acre. Various dates. Payable in 40 graduated annual installments.
- 1948, August 20: Contract with Shasta View irrigation district adjusting repayment amount and schedule.
- 1955, December 21: Amendatory contract with Shasta View irrigation district to provide for inclusion of land.

Construction repayment history—Pumping division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjust- ments	Total	Cumulative total
1919	\$15, 264							
1920	15, 264	\$763		\$763	\$763		\$763	\$763
1921	62, 957	0		0	0		0	763
1922	68, 567	2, 385		2, 385	0		0	763
1923	374, 193	112		112	112		112	875
1924	374, 193	112		112	56		56	931
1925	374, 513	907		907	144	\$56	200	1, 131
1926	374, 513	907		907	875	2, 385	3, 260	4, 391
1927	374, 513	3, 404		3, 404	3, 292	32	3, 324	7, 715
1928	387, 805	4, 810		4, 810	4, 804	763	5, 567	13, 282
1929	397, 781	5, 556		5, 556	3, 010	6	3, 016	16, 298
1930	399, 923	5, 648		5, 648	3, 422	2, 385	5, 807	22, 105
1931	423, 083	5, 907		5, 907	3, 268	2, 385	5, 653	27, 758
1932	434, 151	2, 340	¹ \$3, 076	¹ 736	1, 907	¹ 590	1, 317	29, 075
1933	434, 625	2, 403	¹ 2, 629	¹ 226	0	¹ 1, 753	¹ 1, 753	27, 322
1934	434, 656	416	¹ 2, 026	¹ 1, 610	0	¹ 92	¹ 92	27, 230
1935	439, 387	4, 650	¹ 561	4, 089	1, 669		1, 669	28, 899
1936	455, 698	5, 637	¹ 707	4, 930	4, 901	1, 857	6, 758	35, 657
1937	464, 180	7, 503	¹ 92	7, 411	6, 805		6, 805	42, 462
1938	473, 383	6, 668	¹ 655	6, 013	6, 324	405	6, 729	49, 191
1939	474, 335	7, 670		7, 670	6, 787	408	7, 195	56, 386
1940	488, 928	7, 735		7, 735	7, 218	785	8, 003	64, 389
1941	488, 928	8, 058		8, 058	6, 345	963	7, 308	71, 697
1942	489, 588	8, 244		8, 244	7, 865	1, 545	9, 410	81, 107
1943	489, 588	11, 062		11, 062	10, 989	526	11, 515	92, 622
1944	497, 177	9, 266		9, 266	9, 013	223	9, 236	101, 858
1945	497, 177	9, 335		9, 335	6, 171	303	6, 474	108, 332
1946	497, 177	9, 631		9, 631	9, 187	3, 420	12, 607	120, 939
1947	497, 177	9, 791		9, 791	8, 457	444	8, 901	129, 840
1948	497, 177	9, 650		9, 650	6, 860	1, 334	8, 194	138, 034
1949	501, 649	9, 693		9, 693	8, 565	2, 790	11, 355	149, 389
1950	501, 649	14, 125		14, 125	11, 621	1, 128	12, 749	162, 138
1951	501, 649	16, 598		16, 598	15, 883	2, 504	18, 387	180, 525
1952	501, 649	13, 276		13, 276	12, 911	715	13, 626	194, 151
1953	² 504, 468	14, 780		14, 780	14, 780	36	14, 816	208, 967
1954	504, 468	14, 779		14, 779	14, 779	15	14, 794	223, 761
1955	504, 468	14, 779		14, 779	14, 779		14, 779	238, 540
1956	504, 468	14, 779		14, 779	14, 779	6	14, 785	253, 325
1957	504, 468	8, 285	6, 743	15, 028	8, 054	6, 743	14, 797	268, 122
Total		271, 664	—3, 003	268, 661	236, 395	31, 727	268, 122	
Collected				268, 122				
Uncollected				539				

¹ Decrease. Decreases are due to deferments under relief acts.² Increase. Adjustment between divisions.TULE LAKE DIVISION ¹

The Tule Lake division consists of former public lands and State lands. The State lands were ceded to the United States by the States of Oregon and California in 1905. The unwatering and the development for settlement of these lands which formerly were a part of the Tule Lake bed have been a gradual process since 1905. The unwatering of the lands and their protection from flooding have been accomplished by (a) construction of reservoirs upstream on the Lost River, (b) diver-

sion of Lost River flood flows to the Klamath River by means of a canal upstream from the lands in question, (c) pumping of water from Tule Lake, and (d) construction of Klamath Straits drain augmented by pumping plants to carry excess water from Lower Klamath Lake to the Klamath River. Because of the successful experience in reclaiming the lands by this process, the capacity of these works has been increased from time to time by additional construction so that additional areas could be brought under irrigation farming.

¹ Including 2,089.4 acres in Klamath irrigation district.

*Operation and maintenance assessments history—
Pumping division*

Fiscal year	Accruals	Collections
1919		
1920	\$76	\$76
1921	77	77
1922	250	174
1923	281	205
1924	284	231
1925	269	186
1926	488	621
1927	256	79
1928	6,437	6,725
1929	9,246	7,445
1930	8,464	6,932
1931	4,564	7,218
1932	8,409	5,817
1933	4,054	4,077
1934	4,601	3,941
1935	5,112	4,873
1936	4,549	4,530
1937	4,845	5,090
1938	5,600	5,547
1939	6,024	5,995
1940	6,015	6,101
1941	6,055	6,006
1942	6,032	6,075
1943	7,344	7,097
1944	8,438	8,621
1945	9,292	8,980
1946	10,131	9,984
1947	11,488	15,978
1948	12,200	12,200
1949	15,788	15,788
1950	39,436	39,436
1951	41,188	41,188
1952	22,929	22,929
1953	34,062	34,062
1954	34,563	34,563
1955	8,791	8,791
1956	0	0
1957	0	0
Total	347,638	347,638

The Tule Lake division lands were opened for settlement under 11 different public notices and orders, the first of which was in 1922 and the last in 1948. About 44,000 irrigable acres making up 613 farm units have been homesteaded.

The first opening in 1922 (Public Notice No. 13) announced a construction charge of \$90 per irrigable acre. In 1923, Order No. 14 suspended Public Notice No. 13 pending a review of estimated construction cost chargeable to the project. Order No. 19 opening additional lands in 1927 notified the water users that the division would be operated on a water rental basis until a district was formed and a joint liability contract executed. This order also announced a construction charge

of \$88.35 per acre and explained its basis. The \$88.35 per acre charge was to apply if a district were organized and assumed the responsibility for operation and maintenance of the irrigation works. If no district were formed, the charge was to be \$100.55 per acre. Each subsequent public notice carried a clear statement of construction charges against the lands being opened (as did Public Notice No. 13), as well as provisions for the entryman to agree to the inclusion of his lands within an irrigation district.

The Tule Lake irrigation district was organized in 1952 and has entered into a repayment contract covering the lands within the Tule Lake division in the State of California. The contract was executed on September 10, 1956, after being specifically authorized in the act of August 1, 1956 (70 Stat. 799). With regard to the 41,695 irrigable acres already settled within the district, the contract provides for the payment of \$3,544,100 (\$85 per acre) in equal semiannual installments over a 40-year period, commencing January 1, 1957. The district's obligation is to be increased at the rate of \$85 per acre for any additional public lands which may be settled in the future. Tule Lake division lands (2,079 acres) in Oregon have a similar \$85 per acre repayment obligation which is to be collected by the Klamath irrigation district and paid to the United States in accordance with the joint liability contract of June 25, 1927, between the United States and the Klamath irrigation district. In accordance with the act of August 1, 1956 (70 Stat. 799), which authorized the Tule Lake irrigation district repayment contract, the Tule Lake division lands in both the Klamath and the Tule Lake irrigation districts are to share in a portion of future revenues accruing from the leasing of public lands in the Tule Lake division. During the time that construction charges are being paid but in no event after the year 2020, the sum of 30 percent annually of all net lease revenues received but not more than \$50,000 per year is to be credited on an equal per acre basis on the construction charges payable to the United States. After all construction charges are repaid, the water users will receive annually 10 percent of all net lease revenues. While the actual construction charge to be paid after the lease credits have been applied will depend in part upon

when and if additional lands are settled, the number of acres opened for settlement, and the amount of future annual lease revenues, it is estimated that the actual cash repayment by the water users will average from \$35 to \$50 per acre. The repayment of all Tule Lake division costs in excess of construction charges payable by the water users will be accomplished by the application of accumulated and future lease revenues or other credits due to the Tule Lake division. Lease and other revenues accumulated to June 30, 1956, approach \$7 million, and at present average about \$500,000 per year.

CONTRACTS

Individual water-right applications for 2417.9 acres in California under Public Notice No. 13.
 Central Pacific Railroad Co. and Great Northern Railroad Co. for purchase of right-of-way, 293.6 acres at \$100.55 per acre.
 Fifteen contracts for permanent water rights from Lost River.
 Contract with Colonial Realty Co. covering exchange of Main division lands for Tule Lake division lands and purchase of water rights for 1,190 acres at cost of \$40,460.
 Contract with Tule Lake irrigation district, executed pursuant to Public Law 877, signed September 10 1956.

Construction repayment history—Tule Lake division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1923	\$224,388	\$11,219		\$11,219	\$11,219		\$11,219	\$11,219
1924	215,964		¹ \$421	¹ 421		¹ \$421	¹ 421	10,798
1925	214,218		¹ 87	¹ 87		¹ 87	¹ 87	10,711
1926	217,980	188		188	188		188	10,899
1927	222,012	202		202	202		202	11,101
1928	221,076	1,048		1,048		¹ 45	¹ 45	11,056
1929	221,076	1,095		1,095	500	1,093	1,593	12,649
1930	235,906	17,636		17,636	16,803	596	17,399	² 30,048
1931	235,906	1,095		1,095		832	832	30,880
1932	235,798	558		558		538	538	31,418
1933	248,816	12,981	¹ 931	12,050	12,981		12,981	³ 44,399
1934	247,535	302	¹ 184	118	302		302	44,701
1935	247,739	10		10	10		10	44,711
1936	251,597	4,206		4,206	3,828		3,828	48,539
1937	292,330	1,662		1,662	1,294	194	1,488	50,027
1938	292,438	1,390	¹ 552	838	1,012		1,012	51,039
1939	293,257	1,430		1,430	1,430	377	1,807	52,846
1940	295,647	1,430		1,430	95		95	52,941
1941	296,836	1,983		1,983	508		508	53,449
1942	296,836	1,231	¹ 736	495	164	10	174	53,623
1943	296,836	1,230		1,230	124		124	53,747
1944	296,836	1,230		1,230	1,182	4,241	5,423	59,170
1945	296,836	1,230		1,230	1,135		1,135	60,305
1946	296,836	1,230		1,230	1,180	89	1,269	61,574
1947	296,836	1,230		1,230	1,230	101	1,331	62,905
1948	297,692	1,274		1,274	1,274		1,274	64,179
1949	305,360	8,941		8,941	8,941		8,941	73,120
1950	305,360	1,157		1,157	1,062		1,062	74,182
1951	305,424	2,803		2,803	2,702	95	2,797	76,979
1952	305,424	1,191		1,191	1,039	101	1,140	78,119
1953	⁴ 366,599	39,748		39,748	39,748		39,748	117,867
1954	408,146	1,571		1,571	1,571	79	1,650	119,519
1955	361,703	1,571		1,571	1,571	73	1,644	121,161
1956	478,340	1,571		1,571	1,571		1,571	122,732
1957	3,805,131	140,732	69,895	210,627	128,263	69,895	188,158	310,890
Total		266,375	66,984	333,359	243,129	77,761	310,890	
Collected				310,890				
Uncollected				22,469				

¹ Decrease. Decreases are due to individuals changing from a permanent water right to water-rental basis.

² 1930. Includes purchase right-of-way for Central Pacific R. R.

³ 1933. Includes purchase right-of-way for Great Northern R. R.

⁴ Increase. Adjustment between divisions.

*Operation and maintenance assessments history—
Tule Lake division*

Fiscal year	Accruals	Collections
1923		
1924	\$2, 875	\$1, 455
1925	3, 599	2, 478
1926	3, 605	3, 663
1927	3, 534	4, 280
1928	1, 060	2, 476
1929	561	882
1930	615	510
1931	561	550
1932	223	0
1933	152	0
1934	88	375
1935	110	2
1936	107	105
1937	1, 765	269
1938	1, 765	3, 263
1939	1, 774	1, 881
1940	179	168
1941	219	218
1942	102	91
1943	102	79
1944	2, 066	2, 078
1945	2, 244	2, 233
1946	2, 422	2, 432
1947	4, 906	4, 942
1948	5, 087	5, 087
1949	6, 255	6, 255
1950	6, 808	6, 808
1951	9, 298	9, 298
1952	5, 934	5, 934
1953	7, 676	7, 676
1954	7, 783	7, 783
1955	9, 289	9, 289
1956	14, 882	14, 882
1957	10, 886	10, 886
Total	118, 328	118, 328

¹ Decrease.

Modoc Unit.—The first monies appropriated for the construction of the Modoc unit of the Tule Lake division were included in the Interior Appropriation Act for fiscal year 1941. Since that time, additional funds have been appropriated annually and the total cost as of June 30, 1956, was \$7,234,221.

The Langell Valley irrigation district entered into a contract for the repayment of \$32,067 of costs as charged to Modoc unit for channelization of Lost River which granted them water for additional areas. Individuals also contracted for additional areas to be served from such channelization and agreed to repay \$78,923 as expended. In addition to these contracts, \$5,768,170 has been credited towards repayment of the cost of this unit which has been collected as agricultural lease revenues of areas within the drained area. This

application is in accordance with the 1941 appropriation act.

The remaining costs of the unit are to be repaid from lease revenues.

The Tule Lake irrigation district will assume operation and maintenance activities of the systems of this unit on January 1, 1957, in accordance with Contract 14-06-200-5954 dated September 10, 1956.

*Operation and maintenance assessments history—
Modoc unit*

Fiscal year	Accruals	Collections
1947	\$4, 886	\$4, 886
1948	16, 508	16, 508
1949	13, 949	13, 949
1950	9, 562	9, 562
1951	18, 153	18, 153
1952	14, 253	14, 253
1953	14, 821	14, 821
1954	26, 796	26, 796
1955	22, 617	22, 617
1956	10, 500	10, 500
1957	18, 404	18, 404
Total	170, 449	170, 449

MISCELLANEOUS CONTRACTS

Determination of repayment obligations as of June 30, 1957:

Construction cost	\$555, 934
Less revenues	206, 965
Total	\$348, 969
Adjustment to be made	180, 555
Total	\$168, 414

CONTRACTS

- 1917, November 30: Contract with Klamath drainage district for repayment of cost of investigations of practicability of reclaiming marsh lands and change in source of water supply for Van Brimmer drainage district. Obligation \$93,787, payable in 20 years.
- 1919, March 30: Contract Ilr-404 with J. W. Siemens for drainage. Obligation \$17,033, payable in 20 years.
- 1919, July 10: Contract Ilr-400 with Horsefly irrigation district for water supply from Bonanza Springs for 4,400 acres at \$6.50 per acre, payable in 20 years. Contract amended on October 12, 1922, by increasing acreage to 5,900.
- 1920, July 31: Contract Ilr-405 with Upper Van Brimmer drainage district for drainage. Obligation \$17,458, payable in 20 years.

1921, August 10: Contract with Geary Investment Co. for water supply from Upper Klamath Lake for 4193.74 acres at 25 cents per acre. Obligation \$1,048.44, payable upon execution of contract.

1921, August 24: Contract Ilr-402 with Klamath drainage district for water supply from Upper Klamath Lake. Obligation \$50,000, payable in 10 equal annual installments.

1923, July 10: Contract with California-Oregon Power Co. for purchase of power site. Obligation \$120,620, payable in 10 years.

1929, July 6: Contract with Klamath drainage district extending time for repayment under contracts of November 30, 1917, and August 24, 1921.

1943, April 28: Contract with Klamath drainage district adjusting obligation under 1917 contract to \$47,175 and rescheduling payments under 1921 contract. Contract approved by act of June 17, 1944 (ch. 261, 58 Stat. 279).

Also 32 contracts with individuals for purchase of water rights from Klamath River and Upper Klamath Lake.

Construction repayment history—Miscellaneous contracts

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1918	\$93,787	\$23,500		\$23,500	\$23,500		\$23,500	\$23,500
1919	93,787							23,500
1920	122,387	286		286	286		286	23,786
1921	156,878	572		572	572		572	24,358
1922	207,926	1,675		1,675	1,334		1,334	25,692
1923	217,676	1,548		1,548	1,207		1,207	26,899
1924	338,296	11,470		11,470	10,955		10,955	37,854
1925	338,724	7,281		7,281	7,281	\$1,197	8,478	46,332
1926	338,724	7,480		7,480	6,799		6,799	53,131
1927	338,724	17,752		17,752	16,721		16,721	69,852
1928	338,724	32,181		32,181	31,840	681	32,521	102,373
1929	338,724	32,627		32,627	18,988	517	19,505	121,878
1930	338,724	21,214		21,214	19,011	13,039	32,050	153,928
1931	338,724	29,353		29,353	25,827	3,256	29,083	183,011
1932	339,001	2,070	¹ \$6,349	¹ 4,279	1,545	1,444	2,989	² 186,000
1933	339,521	30,843	¹ 2,619	28,224	30,052	1,167	31,219	² 217,219
1934	341,660	1,582		1,582	492	1,719	2,211	² 219,430
1935	342,542	8,936	¹ 1,047	7,889	1,607	465	2,072	² 221,502
1936	344,240	4,004	¹ 4,463	¹ 459	3,415	1,438	4,853	² 226,355
1937	344,240	10,528		10,528	3,492	¹ 273	3,219	229,574
1938	344,984	6,277		6,277	4,356	992	5,348	234,922
1939	354,223	10,540		10,540	4,657	131	4,788	239,710
1940	356,730	10,839		10,839	4,903	64	4,967	244,677
1941	357,468	10,752		10,752	4,238	195	4,433	249,110
1942	359,220	9,965		9,965	6,122	696	6,818	255,928
1943	359,345	10,099		10,099	6,114	38	6,152	262,080
1944	362,396	10,287		10,287	7,005	11	7,016	269,096
1945	314,768	6,104	¹ 30,087	¹ 23,983	5,964		5,964	³ 275,060
1946	315,145	6,136		6,136	6,136	140	6,276	281,336
1947	318,958	4,275		4,275	2,840		2,840	284,176
1948	319,909	15,948		15,948	15,620	1,435	17,055	301,231
1949	322,583	2,311		2,311	2,165	328	2,493	303,724
1950	323,543	1,575		1,575	1,429	146	1,575	305,299
1951	324,503	1,663		1,663	1,536	146	1,682	306,981
1952	327,989	3,615		3,615	3,433	127	3,560	310,541
1953	⁴ 286,423	-35,577		-35,577	-35,577	182	-35,395	275,146
1954	286,423	1,300		1,300	1,300		1,300	276,446
1955	289,034	1,300		1,300	1,300		1,300	277,746
1956	289,034	1,300		1,300	1,300		1,300	279,046
1957	⁴ 279,405	12,403	-62,982	-50,579	10,132	-62,982	-52,850	226,196
Total		336,014	-107,547	228,467	259,897	-33,701	226,196	
Collected				226,196				
Uncollected				2,271				

¹ Decrease. Decreases during period 1932 to 1936, inclusive, cover deferments under moratorium acts. Decrease in 1945 represents adjustment of Klamath drainage contract under contract of Apr. 28, 1943.

² Moratorium period.

³ 1945. Adjustment, Klamath drainage district.

⁴ Adjustment between divisions.

*Operation and maintenance assessments history—
Miscellaneous contracts*

Fiscal year	Accruals	Collections
1918		
1919		
1920	\$352	\$352
1921	352	352
1922	352	352
1923	352	352
1924	472	472
1925	472	472
1926	472	472
1927	472	472
1928	485	485
1929	737	737
1930	551	551
1931	504	504
1932	505	505
1933	512	512
1934	525	525
1935	528	522
1936	561	555
1937	536	538
1938	544	548
1939	1,060	1,066
1940	1,082	1,076
1941	1,102	1,101
1942	1,140	1,134
1943	1,127	1,137
1944	1,177	1,179
1945	1,166	1,164
1946	1,180	1,165

*Operation and maintenance assessments history—
Miscellaneous contracts--Continued*

Fiscal year	Accruals	Collections
1947	\$145	\$163
1948	153	153
1949	195	195
1950	183	183
1951	208	208
1952	249	249
1953	220	220
1954	220	220
1955	264	264
1956	526	526
1957	526	526
Total	21,207	21,207

*Tentative allocation of lease revenues—Klamath
project, June 30, 1957*

Division:		
Main		\$42,403
Tule Lake		1,226,081
Modoc		5,533,605
Pumping		17,166
Lower Klamath Lake		194,808
Supplemental services		
Langell Valley		599
Total		7,014,662

Klamath project—Estimated payout schedule—Contracted returns

Fiscal year	Amount	Fiscal year	Amount
Through 1957	\$3,153,512.58	1979	\$110,043.68
1958	120,662.53	1980	101,240.09
1959	184,815.59	1981	100,576.13
1960	183,935.58	1982	100,569.65
1961	183,444.08	1983	100,556.34
1962	162,718.96	1984	100,599.79
1963	160,467.44	1985	91,597.71
1964	161,298.13	1986	91,597.71
1965	153,431.20	1987	91,597.71
1966	147,014.29	1988	91,597.71
1967	146,731.21	1989	91,597.71
1968	145,166.08	1990	91,597.71
1969	140,023.69	1991	91,597.71
1970	134,528.88	1992	91,597.71
1971	126,897.01	1993	91,597.71
1972	122,299.60	1994	91,597.71
1973	113,858.26	1995	91,597.71
1974	112,229.79	1996	70,718.97
1975	111,976.69	1997	2,995.06
1976	111,543.57	Not scheduled suspensions	9,473.31
1977	109,468.15		
1978	109,173.32	Total	7,799,544.46

LEWISTON ORCHARDS PROJECT

LEWISTON, IDAHO

Reconstruction of the Lewiston Orchards project was found feasible by the Acting Secretary on May 31, 1946, pursuant to the Reclamation Project Act of 1939 (53 Stat. 1187). However, before the Secretary's report was submitted to Congress, the Congress specifically authorized construction of the project by act of July 31, 1946 (50 Stat. 717). The authorizing act requires full reimbursement of project costs within a 50-year payout period. Purpose of the project is to provide adequate irrigation water for about 3,838 acres in Nez Perce County, Idaho, and a dependable domestic water system for about 4,000 people.

In 1906 a private company undertook diversion of water into a small reservoir and delivery of this water through wood-stave pressure pipelines. The water supply was augmented in 1915, 1922, 1934, and 1939 by providing for new diversions and by increasing the storage capacity. As a result of deterioration of the system, the Lewiston Orchards irrigation district was assisted by the Works Projects Administration during 1939 through 1941 in replacing wooden flumes with concrete bench flumes. This work was not completed.

Under the approved plan the Bureau reconstructed and enlarged the water system previously developed by local interests. The irrigation and domestic water systems were separated and a treatment plant was added to the latter system. Project facilities include diversion dams, feeder canals, storage reservoir, domestic water treatment plant (capacity 1,500,000 gallons per day), 300,000 feet of pipe for the domestic water system, and 300,000 feet of pipe for distribution of irrigation water.

Total estimated repayment obligation is \$2,500,000, of which \$1,438,393 is allocated to

irrigation and \$1,061,607 is allocated to domestic water. The total cost to June 30, 1957, was \$2,484,397.

A final cost notice has not been issued because one of the contractors is claiming additional compensation in the amount of \$14,500. A final notice will be issued when this question has been resolved.

The cost and repayment allocations:

Total project cost to June 30, 1957.....	\$2,484,397
--	-------------

Allocation of reimbursable costs:

Irrigation.....	1,438,681
Domestic water supply.....	1,045,716

Repayment of reimbursable costs:

From irrigation water users.....	1,438,681
From domestic water users.....	1,045,716

Total.....	2,484,397
------------	-----------

Since the domestic water users are also the irrigation water users, the construction obligation is to be repaid in the same manner—50 equal annual installments.

Water was available during the time the system was reconstructed. At all times the system has been under operation of the district with operation and maintenance costs financed by assessment of water users.

Repayment contracts.—The Lewiston Orchards irrigation district concluded a contract with the Government on September 10, 1947, which provided for a maximum construction obligation of \$1,990,000, to be repaid in 50 successive annual installments for both the irrigation system and the domestic water system. This contract was amended on February 2, 1949, to increase the maximum obligation to \$2,500,000 and to allow a

development period of 5 years, during which time no irrigation construction assessments would be made. Repayment began on the domestic water system in 1954 and will be completed on all project works in 2008.

PUBLIC NOTICES AND CONTRACTS

1947, September 10: Contract with district for maximum construction obligation of \$1,990,000, payable in 50 successive annual installments.

1949, February 2: Contract Ilr-1502 changed maximum construction obligation to \$2,500,000 and extended the development period for irrigation from 3 to 5 years.

1952, May 2: Department notice allocating tentative project costs. Development period for irrigation begins January 1, 1953, and ends December 31, 1957. First payment due on irrigation on December 31, 1958. First installment on domestic water due December 31, 1953. Final cost notice to be issued at a later date.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1954-----	\$2, 500, 000	\$21, 232	-----	\$21, 232	\$21, 232	-----	\$21, 232	\$21, 232
1955-----	2, 500, 000	21, 232	-----	21, 232	21, 232	-----	21, 232	42, 464
1956-----	2, 500, 000	21, 232	-----	21, 232	21, 232	-----	21, 232	63, 696
1957-----	2, 500, 000	21, 233	-----	21, 233	21, 233	-----	21, 233	84, 929
Total-----		84, 929	-----	84, 929	84, 929	-----	84, 929	-----
Collected-----			-----	84, 929		-----		-----
Uncollected-----			-----	0		-----		-----

LOWER YELLOWSTONE PROJECT

MONTANA-NORTH DAKOTA

Construction of Lower Yellowstone project, which includes Lower Yellowstone district No. 1 in Montana and Lower Yellowstone district No. 2 in North Dakota, was authorized by the Secretary of Interior on May 10, 1904, under the Reclamation Act of June 17, 1902.

The project works, developed to supply water to 9,349 acres of land, consist of a diversion dam in the Yellowstone River with a crest length of 800 feet and a hydraulic height of 4 feet; 71.6 miles of main canal with an initial capacity of 830 second-feet; 225 miles of laterals; 106 miles of drains and a pumping plant with a capacity of 45 second-feet to irrigate 2,300 acres.

Determination of cost and repayment obligation as of June 30, 1957:

Irrigation plant cost.....	\$3, 585, 928
Investigation cost.....	5, 603
Operation and maintenance funded.....	878, 383
Penalties funded.....	47, 529
Total reimbursable.....	4, 517, 443
Less: Construction revenues.....	42, 986
Chargeoff, acts of May 25, 1926, and June 4, 1948.....	391, 789
Adjustments to be made.....	15, 226
Total.....	4, 087, 894

Excess of repayment over costs.

The Lower Yellowstone districts established a board of control to operate the project. The United States transferred operation of the irrigation system to them on January 1, 1932.

Repayment contracts with Lower Yellowstone irrigation districts No. 1 and No. 2, dated September 23, 1926, provide that the districts shall pay to the United States a share of the construction cost based on the irrigable acreage within the district, with each acre of the irrigable chargeable for its share of construction. Provision was made in this contract for reduction in acres and of

charges, pursuant to the act of May 25, 1926 (44 Stat. 636), in which case neither such acres nor the irrigation district would be chargeable therefor.

Pursuant to act of June 4, 1948 (62 Stat. 336), amendatory agreements were executed on May 6, 1952, and June 7, 1952, under which district No. 1 repayment contract is decreased by \$3,533 and district No. 2 is decreased by \$6,002 due to decrease in irrigable land.

PUBLIC NOTICES AND CONTRACTS

- 1908, December 21: Public notice. Construction charge \$42.50 per acre, payable in 10 equal annual installments.
- 1912, March 1: Public notice. Construction charge raised to \$45 per acre, payable in 10 graduated annual installments.
- 1920, December 10, and 1921, March 9: Contracts with Lower Yellowstone irrigation district No. 1 and Lower Yellowstone irrigation district No. 2, respectively, under which districts agree to pay construction cost of project in 20 graduated annual installments. Operation and maintenance deficit and certain other costs designated as supplemental construction to be paid in additional installments after 20-year repayment period.
- 1923, May 24: Contract with town of Savage, Mont. for annual water service charge of \$72.
- 1926, September 23, and November 2, amended May 6, and June 7, 1952: Contracts with Lower Yellowstone irrigation district No. 1 and Lower Yellowstone irrigation district No. 2, respectively. Contracts provide for additional construction work and for funding of delinquencies. Repayment of construction charges to be made on crop-production basis, annual installments to be 5 percent of average gross annual acre income for 10 preceding years. Payout period indefinite.
- 1945, September 17: Contract with city of Sidney, Mont., for annual water service—annual water service charge \$200. Also provides for payment of \$700 at rate of \$100 per year for past due payments under previously canceled contract.
- 1945, October 8: Contract with town of Fairview, Mont., for water service—annual water service charge \$200.

Also provides for payment of \$1,997 at rate of \$100 per year for past due payments under previously canceled contract.

The summary of status of repayment contracts as of June 30 1957:

Total value of contracted repayment..... \$4, 087, 894
Total matured charges..... 2, 519, 871
Total matured charges repaid..... 2, 474, 071
Total matured charges unpaid..... 145, 800

¹\$45,800 due June 30, 1957, paid July 1, 1957.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1909		\$48, 008		\$48, 008	\$238		\$238	\$238
1910		2, 962		2, 962	0	\$6, 532	6, 532	6, 770
1911		55, 054	\$1, 668	56, 722	1, 619	2, 551	4, 170	10, 940
1912		2, 087	¹ 9, 104	¹ 7, 017	225	¹ 361	¹ 136	10, 804
1913		2, 053	¹ 95, 374	¹ 93, 321	0	¹ 6, 921	¹ 6, 921	² 3, 883
1914		44, 779	¹ 671	44, 108	3, 809	¹ 255	3, 554	² 7, 437
1915		1, 944	¹ 664	1, 280	1, 189	117	1, 306	8, 743
1916		7, 599	7, 423	15, 022	693	543	1, 236	9, 979
1917	\$1, 225, 497			¹ 1, 131			5	³ 9, 984
1918	1, 243, 429			4, 469			61	³ 10, 045
1919	1, 243, 429	¹ 57, 703		3, 045	82		0	³ 10, 045
1920	1, 243, 429			11			16	³ 10, 061
1921	1, 243, 429			¹ 64, 097			0	³ 10, 061
1922	⁴ 3, 614, 104	31, 074		31, 074	31, 074		31, 074	41, 135
1923	3, 614, 104			0			0	41, 135
1924	3, 614, 302	28, 090	197	28, 287	6, 544	197	6, 741	47, 876
1925	3, 614, 302	32, 636		32, 636		2, 987	2, 987	50, 863
1926	3, 614, 166	32, 649		32, 649		19, 286	19, 286	70, 149
1927	⁵ 4, 568, 863	10, 850	¹ 62, 966	¹ 52, 116	10, 821	1, 592	12, 413	⁶ 82, 562
1928	4, 568, 863	25, 354		25, 354	25, 354	29	25, 383	⁶ 107, 945
1929	⁷ 4, 164, 249	44, 539		44, 539	44, 233		44, 233	152, 178
1930	4, 134, 865	66, 216		66, 216	61, 583	316	61, 899	214, 077
1931	4, 125, 999	65, 312		65, 312	61, 509	4, 623	66, 132	280, 209
1932	4, 138, 489	4, 341		4, 341	4, 341	3, 803	8, 144	⁸ 288, 353
1933	4, 077, 816	620	¹ 110	510	620	¹ 110	510	⁸ 288, 863
1934	4, 087, 842	1, 634		1, 634	1, 634		1, 634	⁸ 290, 497
1935	4, 096, 817	1, 661		1, 661	1, 661		1, 661	⁸ 292, 158
1936	4, 094, 992	1, 603		1, 603	1, 603		1, 603	⁸ 293, 761
1937	4, 094, 992	25, 760		25, 760	24, 711		24, 711	⁸ 318, 472
1938	4, 094, 992	73, 230		73, 230	45, 588	1, 049	46, 637	365, 109
1939	4, 092, 444	72, 482		72, 482	37, 216	27, 642	64, 858	429, 967
1940	4, 092, 444	72, 242		72, 242	31, 305	35, 266	66, 571	496, 538
1941	4, 092, 444	72, 154		72, 154	40, 473	40, 937	81, 410	577, 948
1942	4, 092, 444	74, 834		74, 834	46, 734	31, 681	78, 415	656, 363
1943	4, 092, 444	78, 155		78, 155	78, 155	28, 100	106, 255	762, 618
1944	4, 097, 429	84, 253		84, 253	84, 253		84, 253	846, 871
1945	4, 097, 429	91, 358		91, 358	91, 358		91, 358	938, 229
1946	4, 097, 429	99, 340		99, 340	99, 340		99, 340	1, 037, 569
1947	4, 062, 878	111, 474		111, 474	111, 474		111, 474	1, 149, 043
1948	4, 067, 484	118, 419		118, 419	118, 419		118, 419	1, 267, 462
1949	4, 087, 338	125, 108		125, 108	125, 108		125, 108	1, 392, 570
1950	4, 087, 338	153, 217		153, 217	131, 637		131, 637	1, 524, 207
1951	4, 087, 338	115, 799		115, 799	115, 799	21, 580	137, 379	1, 661, 586
1952	4, 087, 338	142, 360		142, 360	94, 580		94, 580	1, 756, 166
1953	4, 084, 366	139, 322		139, 322	139, 322	47, 780	187, 102	1, 943, 268
1954	4, 084, 366	148, 223		148, 223	148, 223		148, 223	2, 091, 491
1955	4, 084, 366	147, 623		147, 623	147, 623		147, 623	2, 239, 114
1956	4, 084, 366	141, 718		141, 718	96, 681		96, 681	2, 335, 795
1957	4, 087, 894	138, 788	251	139, 039	138, 276		138, 276	2, 474, 071
Total		2, 679, 221	-159, 350	2, 519, 871	2, 205, 107	268, 964	2, 474, 071	
Collected				2, 474, 071				
Uncollected				⁹ 45, 800				

¹ Decrease. Decreases due to reduction of accruals under 1912 public notice and to funding of delinquent charges under 1926 contracts.

² 1913. Reduction of accruals, 1912 public notice.

³ Water-rental period.

⁴ Increase due to assumption of additional obligations by districts under 1920 and 1921 contracts.

⁵ Increase due to assumption of additional obligations by districts under 1926 contracts.

⁶ 1927. Delinquent charges funded 1926 contracts.

⁷ Reduction due to adjustment of obligation for drainage work from estimated to actual cost.

⁸ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$6,513; 1931, \$71,227; 1932, \$70,455; 1933, \$68,928; 1934, \$69,054; 1935, \$72,175; 1936, \$35,069.

⁹ Paid in July 1957. (See summary of repayments.)

*Operation and maintenance assessments history*¹

Fiscal year	Accruals	Collections
1909-----	\$11, 296	\$56
1910-----	697	6, 000
1911-----	13, 348	6, 162
1912-----	3, 375	1, 945
1913-----	96, 219	16, 947
1914-----	37, 726	4, 206
1915-----	-1, 003	316
1916-----	-23, 204	103
1917-----	-967	9
1918-----	644	91
1919-----	337	0
1920-----	0	0
1921-----	32, 931	0
1922-----	-9, 135	9, 065
1923-----	37, 153	22, 778
1924-----	44, 408	-16, 737
1925-----	47, 442	1, 798
1926-----	52, 427	42, 673
1927-----	-185, 084	50, 243
1928-----	37, 076	41, 216
1929-----	46, 208	52, 104
1930-----	47, 949	46, 529
1931-----	36, 487	40, 826
1932-----	13, 193	13, 193
1933-----	430	430
1934-----	531	531
1935-----	0	0
1936-----	-1, 921	-1, 921
Total-----	338, 563	338, 563

¹ Operation and maintenance by the board of control, for the Lower Yellowstone irrigation districts Nos. 1 and 2, since 1932.

MANCOS PROJECT

MANCOS, COLO.

The Mancos project, located in Montezuma County in southwestern Colorado, was approved by the President on October 24, 1940, under provisions of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended. Authority to amend the Mancos project contract to provide increased reimbursability is contained in the act of June 25, 1947 (61 Stat. 176).

The project works consist of Jackson Gulch Dam and Reservoir on an offstream side, an inlet canal from West Mancos River of 250 second-feet capacity, and an outlet canal of 200 second-feet capacity leading to West Mancos River. Water provided by the project works will ultimately furnish a supplemental supply for 7,872 acres now inadequately irrigated and a full supply for 1,128 acres of irrigable land not now irrigated. The project also provides a water supply for Mesa Verde National Park and additional water for the town of Mancos, Colo.

The total cost of constructing the project features was \$3,914,818. Contracts have been executed with the Mancos water conservancy district for repayment of the reimbursable construction cost.

The features constructed by the United States are being operated by the Bureau of Reclamation with funds advanced by the water users.

Cost and repayment allocations:

Irrigation plant.....	\$3, 914, 818
Add: Other charges funded.....	19, 207
	<hr/> 3, 934, 025
Less:	
Nonreimbursable costs.....	3, 029, 764
Contributions.....	763
Miscellaneous revenues.....	3, 498
	<hr/> 900, 000

¹ Pursuant to act of June 25, 1947 (61 Stat. 176).

Repayment contracts.—The original repayment contract with the Mancos water conservancy district was signed July 20, 1942. An amendatory contract dated December 22, 1947, increases the repayment obligation and extends the repayment period. First payment is due and payable on or before December 31, 1954.

CONTRACTS

- 1942, July 20: Contract Ilr-1384 with Mancos water conservancy district for repayment of \$600,000 in 40 successive equal annual installments.
- 1947, December 22: Amendatory contract Ilr-1384 with the Mancos water conservancy district which increases the repayment obligation of the district from \$600,000 to \$900,000 and increases the repayment period from 40 to 60 successive equal annual installments.

The summary of status of repayment contracts

Total value of contracted repayment.....	\$900, 000
Total matured charges.....	45, 000
Total matured charges repaid.....	45, 000
Total matured charges unpaid.....	(

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1952-----	\$900,000							
1953-----	900,000							
1954-----	900,000							
1955-----	900,000	\$15,000		\$15,000	\$15,000		\$15,000	\$15,000
1956-----	900,000	15,000		15,000	15,000		15,000	30,000
1957-----	900,000	15,000		15,000	15,000		15,000	45,000
Total-----		45,000		45,000	45,000		45,000	
Collected-----				45,000				
Uncollected-----				0				

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1951-----	¹ \$6,000	\$6,000
1952-----	¹ 7,000	7,000
1953-----	¹ 7,500	7,500
1954-----	8,000	8,000
1955-----	8,000	8,000
1956-----	9,000	9,000
1957-----	11,425	(²)
Total-----	56,925	45,500

¹ Development period charge equal to estimated operation and maintenance costs.

² Payable December 31, 1956.

MICHAUD FLATS PROJECT

AMERICAN FALLS, IDAHO

The Michaud Flats project was authorized by Congress on August 31, 1954 (68 Stat. 1062).

The project is located in Power County in southern Idaho. The plan of development is to lift storage water from American Falls Reservoir which, together with pumped ground water, will be distributed to 11,240 acres, most of which was previously devoted to grazing and dry land wheat production. Under irrigation, project lands are expected to be used primarily for the production of general crops, row crops and livestock. The principal project features consist of American Falls pumping plant and appurtenant works; two main canals; about 30 wells and associated ground-water pumping installations; and a distribution system that will include service under pressure for sprinkler irrigation of the project classified as sprinkler land.

The current estimated construction cost of the project works is \$5,124,000 and includes reservoir water supply costs apportioned to the district for repayment of \$103,200 for American Falls Reservoir and \$368,100 for Palisades Reservoir. Of this total estimate, \$2,700,000 is to be repaid by the district and \$2,424,000 is to be repaid from net power revenue from Palisades powerplant. The district's construction cost obligation may be lowered if the actual reimbursable construction costs of Palisades project are less than the current estimated cost. However, the cost assigned to the district from the Palisades project shall not be less than \$316,975.

The United States will operate the project facilities during the construction period. At the time the development period notice is issued the Secretary may, by written notice, transfer the project facilities to the Falls irrigation district for

operation and maintenance. Construction of project facilities started in fiscal year 1956.

Repayment contract.—The repayment contract with the district, dated December 9, 1955, provides for repayment to the United States the estimated construction cost obligation of \$2,875,000. This obligation includes the water supply cost for Palisades Reservoir in the amount of \$368,100, which may be reduced to a minimum of \$316,975. The final construction cost obligation will be adjusted to reflect the final water supply cost in Palisades Reservoir.

Annual installments shall be determined by applying the "normal and percentage" variable repayment plan. The district, in collecting this annual charge from the water users, shall distribute the assessment by land classes according to relative productivity. Land classes have been assigned to four pay classes with the best lands paying 100 percent and other lands paying lesser rates of 72 percent, 36 percent, and 8 percent, respectively. A development period of 10 years has been allowed for the project lands.

CONTRACT

1955, December 9: Contract 14-06-100-851 with Falls irrigation district to repay an amount not to exceed \$2,875,000 in 50 annual installments. The first installment to be due the first calendar year following the close of a 10-year development period. Each annual installment to be due and payable one-half on September 15 of the year for which it is applicable and one-half on the succeeding June 30.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$2, 875, 000
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

MIDDLE RIO GRANDE PROJECT

ALBUQUERQUE, N. MEX.

The comprehensive plan for the Middle Rio Grande project was approved by the Flood Control Act of June 30, 1948 (54 Stat. 1171). Completion of the approved plan was authorized by the Flood Control Act of May 17, 1950 (64 Stat. 163). The project extends along the Middle Rio Grande Valley from the Colorado-New Mexico boundary south to the backwaters of Elephant Butte Reservoir and includes rectification of the Rio Grande in the vicinity of Truth or Consequences, N. Mex.

The comprehensive plan was designed to improve and stabilize the economy of the Middle Rio Grande Valley by rehabilitation of the Middle Rio Grande conservancy district and by controlling sedimentation and flooding. The plan was developed jointly by the Bureau of Reclamation and the Corps of Engineers in cooperation with other Federal, State and local agencies. The Corps of Engineers was authorized to construct two dams for flood and sediment control, and levees for local flood protection. The Bureau of Reclamation was authorized to perform the following actions: Irrigation and project rehabilitation of the Middle Rio Grande conservancy district, including acquisition of district lands, rehabilitation of El Vado Dam and diversion dams, drainage rehabilitation and extension, and channel rectification on the Rio Grande. The water right irrigable area of the project is 121,680 acres.

The total estimated cost of work to be accomplished by the Bureau of Reclamation is \$32,837,243, including bond acquisition costs to the United States of \$5,300,000 and to the dis-

trict of \$1,140,243. Cost of irrigation and drainage rehabilitation on non-Indian lands will be repaid by the water users; cost of participation by Indian lands will be nonreimbursable. Costs of work to be done by the Bureau of Reclamation are tentatively allocated as follows:

Reimbursable by water users.....	¹ \$16, 880, 243
Nonreimbursable Indian land participation and basic water supply data.....	2, 307, 000
Channel rectification, Rio Grande.....	13, 650, 000
Total.....	32, 837, 243

¹ Of this amount, \$1,140,243 was paid by water users for bond acquisition; therefore, is excluded from the repayment contract.

CONTRACTS

- 1951, September 24: Contract 178r-423 with Middle Rio Grande conservancy district for the rehabilitation and construction of project works and repayment of reimbursable costs over a 40-year period following completion of construction.
- 1953, June 19: Amendment No. 1 deleted a portion of the contract to conform to the opinion of the Supreme Court of the State of New Mexico, filed May 11, 1953.
- 1955, January 4: Amendment No. 2 established date for the Bureau of Reclamation to assume operation and maintenance of district works except El Vado Dam and Reservoir.
- 1956, May 22: Amendment No. 3 provided for the Bureau of Reclamation to assume operation and maintenance of El Vado Dam and Reservoir.

Payout schedule.—Under terms of the repayment contract, the maximum allowable value of the water users' obligation is equal to the sum of the maximum allowable obligation of \$10,440,000 for rehabilitation of irrigation facilities and the cost of \$5,300,000 to the United States for ac-

quisition of bonds. This total of \$15,740,000 will be partially liquidated by collections from the Conservancy District during the construction period which are estimated to total \$1,600,000. The remaining estimated balance of \$14,140,000 is to be repaid in 40 consecutive equal annual installments, which are expected to commence in 1961.

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1955 -----	\$491, 000	\$491, 000
1956 -----	717, 300	717, 300
1957 -----	713, 851	713, 851
Total -----	1, 922, 151	1, 922, 151

MILK RIVER PROJECT

MALTA, MONT.

The Milk River project investigations began in August 1902, leading to the authorization of the project by the Secretary of the Interior on March 14, 1903. The St. Mary storage unit was authorized by the Secretary of the Interior on March 25, 1905, and construction began July 27, 1906. The first water for irrigation was delivered for the season of 1911. Nelson, St. Mary, and Swift Current Dams were completed in 1915, Vandalia Dam in 1921, and Fresno Dam in 1939. Fresno Dam and Reservoir, formerly called Chain Lakes Dam and Reservoir, was constructed under the National Industrial Recovery Act and approved by the President in August 1935 pursuant to the acts of June 25, 1910 (36 Stat. 835), and December 5, 1924 (43 Stat. 672). The Dodson pumping unit was approved by the President on March 17, 1944, under the Water Conservation and Utilization Act of August 11, 1939.

The Milk River project, located in Blaine, Glacier, Phillips, and Valley Counties, Mont., provides for storage of water from St. Mary River in Sherburne Lakes and its diversion through a 29-mile canal, discharging into the North Fork of the Milk River. It then flows through Canada for 216 miles before returning to the United States. Milk River water is stored in Fresno Reservoir, located 17 miles west of Havre, Mont., and in Nelson Reservoir, 19 miles northeast of Malta. The water is diverted from Milk River near Chinook and Harlem into canals on each side of the river for land in that area comprising the Chinook division. Near Dodson two canals divert water for irrigating land near Dodson, Wagner, Malta, and Bowdoin. The south canal conveys water into Nelson Reservoir. From this storage, land is irrigated on the south side of the Milk River and Beaver Creek near Saco and Hinsdale, comprising the Malta division. At Vandalia Dam, a canal on the south side of the Milk River carries water for the irrigation of land

near Tampico, Glasgow, and Nashua, comprising the Glasgow division. Land is also irrigated by pumping above the level of the gravity system along the Milk River Valley. The Dodson pumping unit elevates water from the Dodson north canal to irrigate additional lands above the gravity system.

The operation of storage facilities is by the Bureau of Reclamation with funds advanced by the water users.

The three storage reservoirs have a capacity of 280,700 acre-feet. The length of the distribution works is as follows: main canals, 199 miles; laterals, 248 miles; and drains, 177 miles.

CHINOOK DIVISION

Except for storage facilities, all water supply and distribution works were constructed and are operated and maintained by the five irrigation districts that comprise the Chinook division. These irrigation districts are: Fort Belknap, Alfalfa Valley, Paradise Valley, Zurich, and Harlem. Water is diverted near Lohman for the Fort Belknap, Alfalfa Valley, and Zurich irrigation districts and southeast of Chinook for the Paradise Valley irrigation district. An electric pumping plant east of Zurich furnishes water for the Harlem irrigation district.

Each of the districts has contracted for water from Fresno Reservoir. Each of the five districts of the Chinook division executed contracts with the United States for repayment of its proportionate share of the St. Mary joint works amounting to a total of \$585,202, to be repaid in 80 equal semiannual installments, the first of which was due December 31, 1932. However, payments on temporarily unproductive (class 5) land were suspended until such time as the Secretary of the Interior transfers the class 5 land to the pay class and so notifies the district involved. This obligation was reduced to \$532,743 with a corresponding

per acre obligation reduction from \$14.05 to \$12.79 from an adjustment to costs made on December 31, 1952, which reduced also the annual installments beginning in 1953. The adjusted obligations of the various districts and adjusted annual payments due, exclusive of payment on suspended land, are as follows:

Irrigation district	Total obligation	Scheduled annual installment	Year of final payment
Fort Belknap-----	\$98, 192	\$1, 147	1976
Alfalfa Valley-----	46, 725	1, 089	1976
Zurich-----	109, 807	2, 142	1976
Harlem-----	147, 361	2, 674	1976
Paradise Valley-----	130, 658	2, 104	1976
Total-----	532, 743	-----	-----

None of the originally suspended (class 5) land has been transferred to the pay class, and consequently no repayment for this land has been scheduled.

Each of the five irrigation districts has contracted for a supplemental water supply from the Fresno Reservoir and assumed its proportionate share of the cost. The obligation of each participating district was fixed at \$25.95 per acre of classes 1 to 4 land and was scheduled for repayment in 80 semiannual installments, the first 40 of which were at the rate of \$0.25 per acre and the last at slightly less than \$0.40 per acre. District obligations and scheduled annual installments for Fresno Reservoir are as follows:

Irrigation district	Contract	Obligation	Annual payment		Year last payment due
			First 20 years	Second 20 years	
Fort Belknap-----	Ilr-909-----	\$99, 228	\$1, 912	\$3, 050	1984
Alfalfa Valley-----	Ilr-138-----	94, 260	1, 840	2, 873	1984
Zurich-----	Ilr-666-----	185, 410	3, 615	5, 655	1984
Paradise Valley-----	Ilr-665-----	182, 080	3, 550	5, 554	1984
Harlem-----	14-06-W-75-----	231, 422	4, 459	7, 112	1994
Total-----	-----	792, 400	-----	-----	-----

Payments on St. Mary storage began in 1937, as prior installments were deferred, and in 1944 on Fresno contracts. Payments matured to June 30, 1957, on St. Mary storage total \$212,030 and on Fresno storage \$159,054.

Rehabilitation and betterment contracts.—Rehabilitation of the St. Mary storage works has become necessary, and contracts have been negotiated establishing an obligation of \$134,851 for this work.

Agreements executed by the 5 districts on May 18, 1949, provide for repayment of the 1949 rehabilitation costs of \$13,703 in 5 equal annual installments beginning in 1962.

Contracts covering the 1950 appropriations were executed by the 5 districts on February 14, 1950, and later amended to include appropriations for the years 1952 to 1957. These contracts were in the amount of \$121,148 and provide for the repayment of rehabilitation and betterment expendi-

Chinook division contracts

Irrigation district	Contract No.	Date	Contract obligation
Fort Belknap-----	I79r-1310--	May 18, 1949	\$2, 526
Do-----	Ilr-1572--	Aug. 19, 1952	22, 332
Alfalfa Valley-----	I79r-1323--	May 18, 1949	1, 202
Do-----	Ilr-1573--	July 18, 1952	10, 620
Zurich-----	I79r-1309--	May 18, 1949	2, 824
Do-----	Ilr-1571--	July 18, 1952	24, 973
Harlem-----	I79r-1307--	May 18, 1949	3, 790
Do-----	Ilr-1577--	Oct. 11, 1952	33, 508
Paradise Valley--	I79r-1308--	May 18, 1949	3, 361
Do-----	Ilr-1576--	Aug. 2, 1952	29, 715
Total-----	-----	-----	134, 851

tures after the districts have completed payments on the St. Mary storage contract; that is, repayments are scheduled to begin in 1978, which is prior to the final payments as scheduled on Fresno contracts.

Construction repayment history—Chinook division—Alfalfa Valley irrigation district

[St. Mary-Fresno and rehabilitation and betterment]

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1927								
1928								
1929								
1930		(1)						
1931		(1)						
1932	\$51, 296	(1)						
1933	51, 296	(1)						
1934	51, 325	(1)						
1935	51, 380	(1)						
1936	51, 315	(1)						
1937	51, 315	\$638		\$638	\$638		\$638	\$638
1938	51, 315	1, 276		1, 276	638		638	1, 276
1939	51, 315	1, 276		1, 276	638	\$638	1, 276	2, 552
1940	51, 315	1, 276		1, 276	638	1, 276	1, 914	4, 466
1941	51, 315	1, 276		1, 276	638		638	5, 104
1942	51, 315	1, 276		1, 276	638	638	1, 276	6, 380
1943	51, 315	1, 276		1, 276	638	638	1, 276	7, 656
1944	² 145, 575	3, 116		3, 116	3, 116	638	3, 754	11, 410
1945	145, 575	3, 116		3, 116	3, 116		3, 116	14, 526
1946	145, 575	3, 116		3, 116	3, 116		3, 116	17, 642
1947	145, 575	3, 116		3, 116	3, 116		3, 116	20, 758
1948	145, 575	3, 116		3, 116	3, 116		3, 116	23, 874
1949	³ 146, 777	3, 116		3, 116	3, 116		3, 116	26, 990
1950	146, 777	3, 116		3, 116	3, 116		3, 116	30, 106
1951	146, 777	3, 116		3, 116	2, 478		2, 478	32, 584
1952	³ 157, 397	3, 116		3, 116	3, 116	638	3, 754	36, 338
1953	⁴ 152, 807	2, 929		2, 929	2, 384		2, 384	38, 722
1954	152, 807	2, 929		2, 929	2, 929	545	3, 474	42, 196
1955	152, 807	2, 929		2, 929	2, 929		2, 929	45, 125
1956	152, 807	2, 929		2, 929	2, 929		2, 929	48, 054
1957	152, 807	2, 930		2, 930	2, 930		2, 930	50, 984
Total		50, 984		50, 984	45, 973	5, 011	50, 984	
Collected				50, 984				
Uncollected				0				

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935, and 1936. Total amount deferred for 5-year period, \$5,770.75.

² Added Fresno contract for \$94,260.

³ Includes rehabilitation and betterment obligations: 1949, \$1,202; and 1952, \$10,620.

⁴ Contract reduced by reason of determination of actual costs of St. Mary storage works in art. 10 of contract Ilr-664.

Construction repayment history—Chinook division—Fort Belknap irrigation district

[St. Mary-Fresno and rehabilitation and betterment]

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1927								
1928								
1929								
1930								
1931								
1932	\$107, 832	(¹)						
1933	107, 832	(¹)						
1934	107, 862	(¹)						
1935	107, 921	(¹)						
1936	107, 862	(¹)						
1937	107, 862	\$671		\$671	\$671		\$671	\$671
1938	107, 862	1, 343		1, 343				671
1939	107, 862	1, 343		1, 343		\$1, 342	1, 342	2, 013
1940	107, 862	1, 343		1, 343	1, 343	894	2, 237	4, 250
1941	107, 862	1, 343		1, 343	672	1, 121	1, 793	6, 043
1942	107, 862	1, 343		1, 343	1, 343		1, 343	7, 386
1943	107, 862	1, 343		1, 343	1, 343		1, 343	8, 729
1944	² 207, 090	3, 255		3, 255	3, 255		3, 255	11, 984
1945	207, 090	3, 255		3, 255	3, 255		3, 255	15, 239
1946	207, 090	3, 255		3, 255	2, 583		2, 583	17, 822
1947	207, 090	3, 255		3, 255	3, 255	672	3, 927	21, 749
1948	207, 090	3, 255		3, 255	3, 255		3, 255	25, 004
1949	³ 209, 616	3, 255		3, 255	3, 256		3, 256	28, 260
1950	209, 616	3, 256		3, 256	3, 256		3, 256	31, 516
1951	209, 616	3, 256		3, 256	2, 584		2, 584	34, 100
1952	³ 231, 948	3, 256		3, 256	3, 256	672	3, 928	38, 028
1953	⁴ 222, 278	3, 059		3, 059	2, 485		2, 485	40, 513
1954	222, 278	3, 059		3, 059	3, 059	574	3, 633	44, 146
1955	222, 278	3, 059		3, 059	3, 059		3, 059	47, 205
1956	222, 278	3, 059		3, 059	1, 529		1, 529	48, 734
1957	222, 278	3, 059		3, 059	3, 059	1, 529	4, 588	53, 322
Total		53, 322		53, 322	46, 518	6, 804	53, 322	
Collected				53, 322				
Uncollected				0				

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935 and 1936. Total amount deferred for 5-year period, \$6,075.16.

² Added \$99,228 Fresno contract.

³ Includes rehabilitation and betterment contract obligations: 1949, \$2,526; and 1952, \$22,332.

⁴ Contract reduced by reason of determination of actual costs of St. Mary storage works and art. 10 of contract Ilr-667.

Construction repayment history—Chinook division—Harlem irrigation district

[St. Mary-Fresno and rehabilitation and betterment]

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative Total
1927								
1928								
1929								
1930								
1931								
1932	\$161,802	(¹)						
1933	161,802	(¹)						
1934	161,873	(¹)						
1935	162,011	(¹)						
1936	161,873	(¹)						
1937	161,873	\$1,566		\$1,566				
1938	161,873	3,132		3,132	\$1,566	\$1,566	\$3,132	\$3,132
1939	161,873	3,132		3,132		1,566	1,566	4,698
1940	161,873	3,132		3,132	1,566	1,566	3,132	7,830
1941	161,873	3,132		3,132	3,132	2,458	5,590	13,420
1942	161,873	3,132		3,132	3,132	674	3,806	17,226
1943	161,873	3,132		3,132	3,132		3,132	20,358
1944	161,873	3,132		3,132	3,132		3,132	23,490
1945	161,873	3,132		3,132	3,132		3,132	26,622
1946	161,873	3,132		3,132	3,132		3,132	29,754
1947	161,873	3,132		3,132	3,132		3,132	32,886
1948	161,873	3,132		3,132	3,132		3,132	36,018
1949	² 165,663	3,133		3,133	3,133		3,133	39,151
1950	165,663	3,133		3,133	3,133		3,133	42,284
1951	165,663	3,133		3,133	3,133		3,133	45,417
1952	² 199,171	3,133		3,133	3,133		3,133	48,550
1953	³ 184,659	2,674		2,674	2,674		2,674	51,224
1954	184,659	2,674		2,674	2,674		2,674	53,898
1955	⁴ 416,081	7,132		7,132	7,132		7,132	61,030
1956	416,081	7,132		7,132	3,566	3,566	3,566	64,596
1957	416,081	7,132		7,132	3,566	3,566	7,132	71,728
Total.....		75,294		75,294	60,332	14,962	71,728	
Collected.....				71,728				
Uncollected.....				3,566				

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935, and 1936. Total amount deferred, \$14,166.10.

² Includes rehabilitation and betterment obligations: 1949, \$3,790; and 1952, \$33,508.

³ Contract reduced by reason of determination of actual costs of St. Mary storage works in art. 10 of contract 11r-668.

⁴ Added Fresno contract of \$231,422.

Construction repayment history—Chinook division—Paradise Valley irrigation district

[St. Mary-Fresno and rehabilitation and betterment]

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative Total
1927								
1928								
1929								
1930								
1931								
1932	\$143, 468	(¹)						
1933	143, 468	(¹)						
1934	143, 524	(¹)						
1935	143, 633	(¹)						
1936	143, 524	(¹)						
1937	143, 524	\$1, 233		\$1, 233				
1938	143, 524	2, 465		2, 465	\$1, 233	\$1, 233	\$2, 466	\$2, 466
1939	143, 524	2, 465		2, 465	2, 465	1, 233	3, 698	6, 164
1940	143, 524	2, 465		2, 465	1, 234	1, 233	2, 467	8, 631
1941	143, 524	2, 465		2, 465	1, 234		1, 234	9, 865
1942	143, 524	2, 465		2, 465	1, 234	1, 233	2, 467	12, 332
1943	143, 524	2, 465		2, 465	2, 465	1, 226	3, 691	16, 023
1944	143, 524	2, 465		2, 465	2, 465		2, 465	18, 488
1945	² 325, 604	6, 015		6, 015	6, 015		6, 015	24, 503
1946	325, 604	6, 014		6, 014	6, 014		6, 014	30, 517
1947	325, 604	6, 014		6, 014	6, 014		6, 014	36, 531
1948	325, 604	6, 014		6, 014	6, 014		6, 014	42, 545
1949	³ 328, 965	6, 014		6, 014	6, 014		6, 014	48, 559
1950	328, 965	6, 014		6, 014	6, 014		6, 014	54, 573
1951	328, 965	6, 014		6, 014	6, 014		6, 014	60, 587
1952	³ 358, 680	6, 014		6, 014	4, 782		4, 782	65, 369
1953	⁴ 345, 814	5, 654		5, 654	5, 654	1, 232	6, 886	72, 255
1954	345, 814	5, 654		5, 654	5, 654		5, 654	77, 909
1955	345, 814	5, 654		5, 654	5, 654		5, 654	83, 563
1956	345, 814	5, 654		5, 654	5, 654		5, 654	89, 217
1957	345, 814	5, 654		5, 654	5, 654		5, 654	94, 871
Total		94, 871		94, 871	87, 481	7, 390	94, 871	
Collected				94, 871				
Uncollected				0				

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935, and 1936. Total amount deferred, \$11,146.49.

² Added Fresno contract for \$182,080.

³ Includes rehabilitation and betterment obligations: 1949, \$3,361; and 1952, \$29,715.

⁴ Contract reduced by reason of determination of actual costs of St. Mary storage works and art. 10 of contract Ilr-667.

Construction repayment history—Chinook division—Zurich irrigation district

[St. Mary-Fresno and rehabilitation and betterment]

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative Total
1927								
1928								
1929								
1930								
1931								
1932	\$120, 562	(1)						
1933	120, 562	(1)						
1934	120, 619	(1)						
1935	120, 730	(1)						
1936	120, 619	(1)						
1937	120, 619	\$1, 255		\$1, 255	\$1, 255		\$1, 255	\$1, 255
1938	120, 619	2, 510		2, 510	2, 510		2, 510	3, 765
1939	120, 619	2, 510		2, 510	2, 510		2, 510	6, 275
1940	120, 619	2, 510		2, 510	2, 510		2, 510	8, 785
1941	120, 619	2, 510		2, 510	1, 255		1, 255	10, 040
1942	120, 619	2, 510		2, 510	1, 255	\$1, 255	2, 510	12, 550
1943	120, 619	2, 510		2, 510	2, 510	1, 255	3, 765	16, 315
1944	120, 619	2, 510		2, 510	2, 510		2, 510	18, 825
1945	² 306, 029	6, 125		6, 125	6, 125		6, 125	24, 950
1946	306, 029	6, 126		6, 126	6, 126		6, 126	31, 076
1947	306, 029	6, 125		6, 125	4, 871		4, 871	35, 947
1948	306, 029	6, 125		6, 125	6, 125		6, 125	42, 072
1949	³ 308, 853	6, 125		6, 125	6, 125	1, 255	7, 380	49, 452
1950	308, 853	6, 125		6, 125	6, 125		6, 125	55, 577
1951	308, 853	6, 125		6, 125	4, 871		4, 871	60, 448
1952	³ 333, 826	6, 125		6, 125	4, 871	1, 255	6, 126	66, 574
1953	⁴ 323, 014	5, 758		5, 758	4, 686	1, 255	5, 941	72, 515
1954	323, 014	5, 758		5, 758	4, 686	1, 071	5, 757	78, 272
1955	323, 014	5, 757		5, 757	4, 685	1, 071	5, 756	84, 028
1956	323, 014	5, 757		5, 757	2, 878	1, 071	3, 949	87, 977
1957	323, 014	5, 757		5, 757	2, 878	2, 879	5, 757	93, 734
Total		96, 613		96, 613	81, 367	12, 367	93, 734	
Collected				93, 734				
Uncollected				2, 879				

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935, and 1936. Total amount deferred, \$11,350.28.

² Added Fresno contract, \$185,410.

³ Includes rehabilitation and betterment obligations: 1949, \$2,824; and 1952, \$24, 973.

⁴ Contract reduced by reason of determination of actual costs of St. Mary storage works and art. 10 of contract Ilr-666.

*Operation and maintenance assessments history—
Chinook division*

Fiscal year	Accruals	Collections
1927	\$9, 503	\$9, 503
1928	8, 900	8, 900
1929	6, 600	5, 725
1930	5, 930	6, 020
1931	6, 000	6, 785
1932	4, 000	3, 595
1933	11, 089	8, 641
1934	4, 607	6, 629
1935	4, 623	4, 110
1936	5, 198	5, 925
1937	5, 265	5, 296
1938	6, 059	5, 855
1939	4, 655	2, 838
1940	5, 181	7, 176
1941	4, 066	4, 592
1942	5, 078	4, 970
1943	3, 307	3, 465
1944	4, 277	4, 314
1945	5, 189	4, 622
1946	6, 250	5, 130
1947	6, 326	8, 012
1948	6, 735	6, 735
1949	5, 093	5, 093
1950	9, 564	9, 564
1951	8, 964	8, 964
1952	11, 167	11, 167
1953	13, 291	13, 291
1954 ¹	9, 987	9, 987
1955	8, 269	8, 269
1956	6, 770	5, 179
1957	8, 090	9, 681
Total	210, 033	210, 033

¹ Operation and maintenance on everything but joint works was turned over to the districts in 1954.

DODSON PUMPING UNIT

The Dodson pumping unit was constructed at a cost of \$125,372.87. The district has an obligation of \$80,500¹ as its proportionate part of the cost of existing works, including Fresno Dam as well as the Dodson pump facilities. A contract between the Dodson irrigation district and the United States was entered into on June 1, 1945, for repayment of the reimbursable portion under authority of the Water Conservation Utilization Act of August 11, 1939 (53 Stat. 1418).

The first installment of 80 semiannual installments of construction charges was due on December 31, 1955.

Payable	Amount payable
First 10 installments	\$250
Second 10 installments	600
Next 60 installments	1, 200

Construction charge obligation consists of (a) \$50,280 (1,005.6 irrigable acres at \$50 per acre) for the cost of previously existing works; (b) \$30,220 for the reimbursable cost of additional works.

¹ Change due to adjustment of contract Ilr-1438 per letter dated January 6, 1955 from acting assistant commissioner. The obligation is based on irrigable acreage of 1,005.6 acres within the district and is in accordance with the terms of the contract.

Construction repayment history—Dodson division—Dodson irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative Total
1956	\$80, 500	\$500		\$500				
1957	80, 500	500		500	\$250	\$500	\$750	\$750
Total	80, 500	1, 000		1, 000	250	500	750	
Collected				750				
Uncollected				250				

*Operation and maintenance assessments history—
Dodson division*¹

Fiscal year	Accruals	Collections
1949.....	\$3, 657	\$3, 657
1950.....	2, 059	2, 059
1951.....	2, 888	2, 888
1952.....		
1953.....		
1954 ²	560	560
1955.....		
1956.....		
1957.....		
Total.....	9, 164	9, 164

¹ Dodson pumping unit—Operation and maintenance of this unit is performed by the Malta irrigation district with funds advanced by the water users.

² Operation and maintenance on everything but joint works was turned over to the districts in 1954.

FRESNO STORAGE DIVISION

The Fresno Dam and Reservoir were constructed to furnish supplemental water to the irrigation districts of the Milk River project.

The obligation has been assumed by six irrigation districts, the Office of Indian Affairs, towns, corporations, and individual contractors. When the sale of the entire amount of Fresno storage water has been completed, the cost will have been oversubscribed, and a downward adjustment in the obligation of irrigation water users is anticipated. Payments on Fresno contracts began in 1944 and on June 30, 1957, a total of \$383,554 had been paid. The works are operated by the United States with funds advanced by the irrigation districts.

In addition to the Chinook division tabulated above, the obligation for repayment is as follows: individuals, corporations, etc., \$328,190, with annual payments of \$8,435 tapering off to \$1,876 and ending in 1992; Bureau of Indian Affairs, \$250,000 with annual payments of \$6,250. The Fresno obligation of the Malta and Glasgow divisions is included in the amendatory contracts and totals \$272,643 for the Glasgow division and \$649,524 for the Malta division.

Construction repayment history—Fresno Dam and Reservoir

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1937.....	\$1, 216, 895							
1938.....	1, 216, 895							
1939.....	1, 216, 895							
1940.....	1, 223, 895							
1941.....	1, 224, 295							
1942.....	1, 224, 295							
1943.....	1, 346, 555							
1944.....	1, 347, 155	\$27, 301		\$27, 301	\$7, 297		\$7, 297	\$7, 297
1945.....	1, 762, 305	35, 821	¹ \$17, 770	18, 051	16, 223	\$1, 668	17, 891	25, 188
1946.....	2, 003, 535	34, 769	¹ 18, 258	16, 511	14, 065	1, 906	15, 971	41, 159
1947.....	2, 087, 555	² 73, 042		73, 042	47, 475		47, 475	88, 634
1948.....	2, 087, 555	42, 278		42, 278	30, 342		30, 342	118, 976
1949.....	2, 100, 555	42, 801		42, 801	24, 405		24, 405	143, 381
1950.....	2, 126, 155	47, 906		47, 906	22, 236		22, 236	165, 617
1951.....	2, 128, 755	48, 660		48, 660	35, 231		35, 231	200, 848
1952.....	2, 136, 755	48, 840		48, 840	30, 705		30, 705	231, 553
1953.....	2, 107, 605	{ 30, 391		30, 391	} 29, 955		29, 955	261, 508
1954.....	2, 109, 605	{ 124, 390		124, 390			32, 291	293, 799
1955.....	2, 382, 587	{ 34, 916		34, 916	} 34, 049	³ 40, 000	74, 049	367, 848
1956.....	2, 359, 381	{ 35, 035	³ 40, 000	35, 035			31, 389	399, 237
1957.....	⁵ 2, 372, 981	27, 818		27, 818	28, 573		28, 573	427, 810
Total.....		435, 604	3, 972	439, 576	384, 236	43, 574	427, 810	
Collected.....				427, 810				
Uncollected.....				11, 766				

¹ Decrease. Deferments under relief acts. 1945—Malta and Glasgow district installments deferred under act of Aug. 4, 1939, \$17,700.

² Includes levy and billing to Bureau of Indian Affairs (\$31,250).

³ Adjustment of \$40,000 due to obligation on Contract No. Ilr-955 dated Mar. 9, 1937, with USDA, Biological Survey, was taken up on books in 1955.

⁴ The \$124,390 reduction is due to adjustment in the accruals, \$87,612 on Malta and \$36,778 on Glasgow, on account of the amendatory contracts with the Malta and Glasgow irrigation districts dated Sept. 10, 1952.

⁵ This total will be increased by the share of payments attributable to Fresno Reservoir from Malta and Glasgow districts and the city of Havre.

*Operation and maintenance assessments history—
Fresno division*

Fiscal year	Accruals	Collections
1944-----	\$1, 397	\$956
1945-----	4, 278	4, 349
1946-----	3, 739	3, 891
1947-----	2, 315	2, 275
1948-----	2, 307	2, 247
1949-----	2, 462	2, 579
1950-----	3, 460	3, 382
1951-----	4, 846	4, 768
1952-----	8, 086	8, 007
1953-----	3, 790	3, 674
1954 ¹ -----	5, 856	5, 648
1955-----	4, 691	4, 329
1956-----	4, 168	3, 638
1957-----	4, 498	4, 568
	² (934)	-----
Total-----	54, 959	54, 311

¹ Operation and maintenance on everything but joint works was turned over to the districts in 1954.

² \$934 deleted from books of account. Uncollectible.

MALTA AND GLASGOW DIVISIONS

Works serving the Malta and Glasgow irrigation districts are operated by the United States with funds advanced by the water users.

Difficulty had been encountered in meeting the terms of previous contracts. All construction payments due prior to June 1937 were deferred, and several more were deferred subsequently. To June 30, 1952, \$609,404 had become due and \$388,723 had been paid on contracts. By June 30, 1952, \$124,390 had become due on Fresno Dam contract, but no payment had been made. Because of these difficulties, a land reclassification was made in 1947, and economic investigations were made leading to a sound repayment plan. Amendatory repayment contracts, negotiated pursuant to section 7 of the Reclamation Project Act of 1939 (53 Stat. 1187), executed by the districts and confirmed by the court (Malta, March 6, 1951; and Glasgow, October 1, 1951) were approved by act of Congress June 23, 1952 (66 Stat. 151), and executed by the Secretary of the Interior on September 10, 1952. These amendatory contracts combined the obligations under the several former contracts including

Fresno storage costs into a single obligation for each district.

The total remaining obligation as restated in the amendatory contract with the Glasgow district was \$1,588,801 as of December 31, 1949. This was the balance remaining after applying \$117,898 of previous water user payments and revenue credits on the district's overall obligation of \$1,706,699. The obligation of the Malta district as of December 31, 1949, as restated in its amendatory contract was \$3,662,165, which was the balance remaining after applying \$381,945 of previous payments and revenue credits on the district's overall obligation of \$4,044,110.

The consolidated obligations in the Malta and Glasgow contracts include the share of these districts in the rehabilitation of the St. Mary's storage works amounting to \$175,150 plus \$550,000 for the rehabilitation of irrigation distribution facilities specific to the 2 districts. The annual payment for the Glasgow district is \$10,500 and the Malta district \$24,000. One-half of the annual payments is due semiannually and began in 1950. The estimated period for repayment commencing in the year 1950 is 116 years for the Glasgow district and 106 years from 1950 for the Malta district. The estimated length of payout period may vary because of credits for any net profits from the sale, rental, or use of grazing lands, farm lands, or townsites, as provided in section 28 of the amendatory contract. Section 14 provides for increasing the basic annual installments if lands are transferred from classes 5 to 6 to paying class or classes. There are 28,656 acres of class 5 land on the Malta district and 7,173 acres on the Glasgow district. A considerable portion of this class 5 land is expected to be transferred to pay classes due to development work under way on the project. The addition of new lands to the districts will also increase the basic annual installments and affect the period of time for payout.

The amount of annual installments may be adjusted to conform to economic conditions under a variable formula, as provided by the contract.

Construction repayment history—Glasgow division—Glasgow irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative Total
1927	\$1, 254, 000							
1928	1, 254, 000							
1929	1, 254, 000							
1930	1, 254, 000							
1931	1, 254, 000							
1932	1, 254, 000	\$3, 750		\$3, 750				
1933	1, 227, 848	5, 700		5, 700				
1934	1, 227, 936	3, 750	¹ \$1, 200	2, 550				
1935	1, 227, 936	3, 750	¹ 3, 750					
1936	1, 391, 775	8, 127	¹ 3, 222	4, 905				
1937	1, 391, 775	10, 727		10, 727				
1938	1, 391, 775	9, 427		9, 427				
1939	1, 391, 775	13, 327	¹ 3, 955	9, 372		\$2, 600	\$2, 600	\$2, 600
1940	1, 391, 775	10, 727	¹ 2, 600	8, 127	\$2, 000	1, 300	1, 300	3, 900
1941	1, 391, 775	13, 328		13, 328	2, 600	600	3, 200	11, 700
1942	1, 391, 775	7, 000		7, 000	2, 161	2, 600	4, 761	16, 461
1943	1, 391, 775	7, 260	¹ 4, 800	2, 460	7, 260	39	7, 299	23, 760
1944	1, 391, 775	7, 260		7, 260	3, 630		3, 630	27, 390
1945	1, 391, 775	12, 514		12, 514	3, 630	3, 630	7, 260	34, 650
1946	1, 391, 775	12, 514		12, 514	7, 260	3, 630	10, 890	45, 540
1947	1, 391, 775	16, 014		16, 014	7, 260		7, 260	52, 800
1948	1, 391, 775	16, 014		16, 014	5, 880		5, 880	58, 680
1949	1, 438, 500	10, 764		10, 764	5, 510		5, 510	64, 190
1950	² 1, 706, 699	10, 630	³ 45, 158	—34, 528	10, 630	³ 43, 078	53, 708	117, 898
1951	1, 706, 699	10, 500		10, 500	10, 500		10, 500	128, 398
1952	1, 706, 699	10, 500		10, 500	10, 500		10, 500	138, 898
1953	1, 706, 699	10, 500		10, 500	10, 500		10, 500	149, 398
1954	1, 706, 699	10, 500		10, 500	10, 500		10, 500	159, 898
1955	1, 706, 699	10, 500		10, 500	10, 500		10, 500	170, 398
1956	1, 706, 699	10, 500		10, 500	10, 500		10, 500	180, 898
1957	1, 706, 699	10, 500		10, 500	10, 500		10, 500	191, 398
Total		256, 083	—64, 685	191, 398	131, 321	60, 077	191, 398	
Collected				191, 398				
Uncollected				0				

¹ Deferments under Relief Act.² New amendatory contract No. 14-06-W-9 composed of original construction charges of \$1,087,556. Rehabilitation and betterment contracts executed in 1949 and 1952 (contract approved in 1952) totaling \$346,500 and Fresno construction charges of \$272,643.³ New amendatory contract No. 14-06-W-9 canceled old accounts receivable in amount of \$45,158, and credited revenue received from sale of town lots—\$4,271 and revenue received from farming and grazing lands—\$38,807.

Construction repayment history—Malta division—Malta irrigation district¹

Fiscal year	Total obligation of water users to repay ¹	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative Total
1927	\$3, 758, 010							
1928	3, 758, 010							
1929	3, 758, 010	¹ \$3, 003		\$3, 003	\$3, 003		\$3, 003	\$3, 003
1930	3, 758, 010							3, 003
1931	3, 758, 010							3, 003
1932	3, 758, 010	14, 690		14, 690				3, 003
1933	3, 682, 479	22, 190		22, 190				3, 003
1934	3, 682, 817	14, 690	² \$7, 700	6, 990				3, 003
1935	3, 682, 817	14, 690		14, 690				3, 003
1936	4, 395, 355	20, 000	² 20, 000					3, 003
1937	4, 395, 355	20, 000		20, 000	7, 300		7, 300	10, 303
1938	4, 395, 355	20, 000		20, 000		\$2, 700	2, 700	13, 003
1939	4, 395, 355	20, 000		20, 000	10, 000	10, 000	20, 000	33, 003
1940	4, 395, 355	20, 000	² 10, 000	10, 000	10, 000		10, 000	43, 003
1941	4, 395, 355	20, 000		20, 000	10, 000		10, 000	53, 003
1942	4, 395, 355	30, 900		30, 900	10, 000	10, 000	20, 000	73, 003
1943	4, 395, 355	31, 000		31, 000	26, 000		26, 000	99, 003
1944	4, 395, 355	43, 517		43, 517	16, 000	9, 000	25, 000	124, 003
1945	4, 395, 355	43, 516		43, 516	15, 500		15, 500	139, 503
1946	4, 395, 355	43, 516		43, 516	21, 550	7, 500	29, 050	168, 553
1947	4, 395, 355	48, 516		48, 516	16, 100		16, 100	184, 653
1948	4, 395, 355	48, 516		48, 516	19, 650		19, 650	204, 303
1949	4, 408, 427	36, 516		36, 516	10, 000	9, 700	19, 700	224, 003
1950	³ 4, 047, 113	30, 000	³ 122, 612	-92, 612	19, 000	³ 141, 945	160, 945	384, 948
1951	4, 047, 113	24, 000		24, 000	24, 000		24, 000	408, 948
1952	4, 047, 113	24, 000		24, 000	24, 000		24, 000	432, 948
1953	4, 047, 113	24, 000		24, 000	24, 000		24, 000	456, 948
1954	4, 047, 113	24, 000		24, 000	24, 000		24, 000	480, 948
1955	4, 047, 113	24, 000		24, 000	24, 000		24, 000	504, 948
1956	4, 047, 113	24, 000		24, 000	24, 000		24, 000	528, 948
1957	4, 047, 113	24, 000		24, 000	17, 665		17, 665	546, 613
Total		713, 260	-160, 312	552, 948	355, 768	190, 845	546, 613	
Collected				546, 615				
Uncollected				6, 335				

¹ Purchase of right-of-way by Great Northern Railway contract Ilr345 July 30, 1928, included—\$3,003.

² Deferment under Relief Act.

³ New amendatory contract No. 14-06-WS composed of original construction charges of \$3,015,936; rehabilitation and betterment contracts executed

in 1949 and 1952 (contract approved in 1952) totaling \$378,650 and Fresn construction charges of \$649,524. New contract canceled old account receivable of \$122,612 and credited revenue received from sale of town lots—\$14,073 and revenue received from farming and grazing lands—\$127,872.

*Operation and maintenance assessments history—Malta and Glasgow divisions**Operation and maintenance assessments history—Malta and Glasgow divisions—Continued*

Fiscal year	Accruals	Collections
1927	\$18, 600	\$10, 959
1928	20, 006	25, 606
1929	27, 800	26, 016
1930	33, 959	31, 784
1931	34, 195	34, 209
1932	44, 129	33, 704
1933	30, 493	26, 398
1934	31, 653	28, 672
1935	29, 374	34, 191
1936	34, 439	37, 014
1937	42, 555	35, 579
1938	47, 488	46, 716
1939	46, 007	43, 118
1940	47, 223	45, 783
1941	42, 544	41, 824
1942	39, 921	29, 023
1943	33, 962	46, 990
1944	38, 976	32, 758
1945	39, 257	25, 212
1946	42, 945	58, 637
1947	60, 993	59, 469

Fiscal years	Accruals	Collections
1948	\$79, 263	\$77, 739
1949	71, 955	70, 431
1950	64, 697	63, 173
1951	78, 727	78, 727
1952	77, 442	77, 442
1953	76, 884	76, 884
1954 ¹	11, 274	11, 274
	(37, 429)	
1955	14, 348	14, 348
1956	12, 567	12, 567
Total	1, 236, 247	1, 236, 247

¹ Operation and maintenance on everything but joint works was turned over to the districts in 1954. Assessments on Glasgow C-2 lands canceled.

Municipal and miscellaneous water contracts.—Contracts have been negotiated with 140 municipalities, corporations and private pumpers for

\$328,190. Of this amount, \$56,000 is attributable and \$272,190 to 137 individuals pumping from 3 municipalities and corporations obligations Milk River or project canals.

Miscellaneous repayment contracts

Organization	Date of contract	Contract obligation	Rate of payment, semiannual
40-year contracts:			
City of Havre-----	Dec. 7, 1936-----	\$16, 000	\$200. 00
City of Chinook-----	do-----	28, 000	350. 00
Great Northern Railway-----	Oct. 21, 1936-----	12, 000	150. 00
137 individuals-----	Sept. 29, 1936, to June 30, 1957---	272, 190	3, 289. 61
Subtotal-----		328, 190	
Fort Belknap Indian Agency-----	Aug. 16, 1946-----	250, 000	¹ 6, 250. 00
U. S. Department of Agriculture, Biological Survey---	Mar. 19, 1937-----	40, 000	(²)

¹ Annual.

² Paid.

Only one water service contract is in effect on the Milk River project:

Contractor-----	City of Havre.
Date of contract-----	Apr. 6, 1950.
Date of initial water delivery-----	Nov. 28, 1951.
Type of contract-----	Water service.
Contract period-----	40 years.
Maximum delivery in 1 year in acre-feet--	2, 800
Rate per acre-foot-----	\$6. 00
Estimated annual income-----	\$6, 500
Maximum annual income-----	\$16, 800
Total collected to June 30, 1957-----	\$28, 733. 34
1952-----	\$1, 099. 14
1953-----	6, 000. 78
1954-----	4, 563. 00
1955-----	6, 923. 22
1956-----	5, 781. 00
1957-----	4, 366. 20
Total-----	28, 733. 34

The dates and symbols of the major repayment contracts are as follows:

St. Mary storage contracts:

Zurich irrigation district----	July 2, 1931, Ilr-666.
Fort Belknap irrigation district.	July 20, 1931, Ilr-667.

Paradise Valley irrigation district.	July 24, 1931, Ilr-665.
Alfalfa Valley irrigation district.	July 25, 1931, Ilr-664.
Harlem irrigation district---	Aug. 5, 1931, Ilr-668.
Fresno Dam and Reservoir contracts:	
Fort Belknap irrigation district.	Aug. 1, 1936, Ilr-909.
Alfalfa Valley irrigation district.	June 6, 1942, Ilr-138.
Paradise Valley irrigation district.	Oct. 7, 1944, Ilr-665.
Zurich irrigation district----	Jan. 24, 1945, Ilr-666.
Harlem irrigation district--	Oct. 11, 1952, 14-06-W-75.
Dodson pumping unit contract: Proportionate share of existing works, including Fresno Dam and project works.	June 1, 1945, Ilr-1438.
Glasgow district contract:	
Original contract-----	July 10, 1926, Ilr-1105.
Amendatory contract-----	Oct. 1, 1951, 14-06-W9.
Malta district contract:	
Original contract-----	July 10, 1926, Ilr-73.
Amendatory contract-----	Mar. 6, 1951, 14-06-W8.
Individuals, corporations and municipalities: 140 contracts.	Sept. 29, 1936, to June 30, 1957.

Rehabilitation and betterment contracts

Contract No.	Date	Contracting agency	Base amount	Payout period
		Chinook division:		
I79r-1310----	May 18, 1949-	Fort Belknap irrigation district-----	\$2, 526	1962-66
I79r-1323----	Do-----	Alfalfa Valley irrigation district-----	1, 202	1962-66
I79r-1309----	Do-----	Zurich irrigation district-----	2, 824	1962-66
I79r-1307----	Do-----	Harlem irrigation district-----	3, 790	1962-66
I79r-1308----	Do-----	Paradise Valley irrigation district-----	3, 361	1962-66
I1r-1572----	Aug. 19, 1952-	Fort Belknap irrigation district-----	22, 332	1978-99
I1r-1573----	July 18, 1952-	Alfalfa Valley irrigation district-----	10, 620	1978-88
I1r-1571----	Do-----	Zurich irrigation district-----	24, 973	1978-89
I1r-1577----	Oct. 11, 1952-	Harlem irrigation district-----	33, 508	1978-91
I1r-1576----	Aug. 2, 1952-	Paradise Valley irrigation district-----	29, 715	1978-92
		Total, Chinook division-----	134, 851	
14-06-W8----	Sept. 10, 1952-	Malta irrigation division ¹ -----	378, 650	-----
14-06-W9----	Do-----	Glasgow irrigation division ¹ -----	346, 500	-----
-----		Total, rehabilitation and betterment-----	860, 001	-----

¹ The amounts of \$378,650 for Malta and \$346,500 for Glasgow included in amendatory repayment contracts Nos. 14-06-W8 dated Sept. 10, 1952 and

14-06-W9 dated Sept. 10, 1952, respectively. See page 148.

Statement of cost and returns—Milk River project—As of June 30, 1957

Item	Project total	Irrigation						Municipalities and corporations	Adjustments and future development
		Malta division	Glasgow division	Chinook division	Dodson division	Pumpers and Malta	Fort Belknap reservation		
COSTS									
Construction costs									
Irrigation plant.....	\$9,198,078.24	\$4,821,826.41	\$1,756,089.89	\$1,931,391.33	\$163,864.73	\$140,477.70	\$250,000.00	\$96,000.00	\$38,428.18
Construction work in progress.....	299,042.81	165,474.55	26,555.96	77,012.30					
St. Mary cost chargeoff.....	145,054.00	64,481.00	16,516.00	64,057.00					
Investigation costs.....	55,244.01	17,792.38	4,949.17	11,781.06					20,721.40
Total, construction costs.....	9,667,419.06	5,069,574.34	1,804,111.02	2,084,241.69	163,864.73	140,477.70	250,000.00	96,000.00	59,149.58
Other charges									
Other charges funded.....	614,159.12	424,256.17	169,161.48	19,009.33	1,732.14				
Interest and penalties funded.....	698.41	338.44	87.97	242.00					
Total other charges.....	614,827.53	424,594.61	169,249.45	19,251.33	1,732.14				
Cost deductions									
Provision for chargeoff by Congress.....	145,054.00	64,481.00	16,516.00	64,057.00					
Reserve for repayment deductions authorized.....	2,137,343.81	1,463,947.29	165,447.19	507,949.33					
Contributions in aid of construction.....	4,400.00	1,521.91	638.84	1,856.69		382.56			
Nonreimbursable plant deductions.....	111,682.13				85,096.87				26,585.26
Total, cost deductions.....	2,398,479.94	1,529,950.20	182,602.03	573,863.02	85,096.87	382.56			26,585.26
Total, net costs.....	7,883,766.65	3,964,218.75	1,790,758.44	1,529,630.00	80,500.00	140,095.14	250,000.00	96,000.00	32,564.32
RETURNS									
Repayment realized									
Repayment contracts matured.....	1,352,695.98	552,948.14	191,398.06	371,083.31	1,000.00	67,566.47	100,000.00	68,700.00	
Excess of income over expense 1.....	81,173.02	33,472.11	11,859.33	31,029.20		4,481.81			330.57
Total, returns realized.....	1,433,869.00	586,420.25	203,257.39	402,112.51	1,000.00	72,048.28	100,000.00	68,700.00	330.57
Anticipated future returns									
Repayment contracts unmatured.....	6,559,799.91	3,491,162.34	1,515,300.94	1,088,910.34	79,500.00	204,623.53	150,000.00	27,300.00	3,002.76
Additional returns anticipated 1.....	165,000.00	57,071.80	23,956.42	69,625.73		14,346.05			
Total, anticipated future returns.....	6,724,799.91	3,548,234.14	1,539,257.36	1,158,536.07	79,500.00	218,969.58	150,000.00	27,300.00	3,002.76
Total, returns.....	8,158,668.91	4,134,654.39	1,742,514.75	1,560,648.58	80,500.00	291,017.86	250,000.00	96,000.00	3,333.33
Excess of costs over returns:									
Original construction.....	292,430.84	(145.66)	120,258.64	175,320.62					(3,002.76)
Adjustments and future development.....	32,233.75								32,233.75
Excess of returns over costs:									
Rehabilitation and betterment.....	7,555.46	3,194.13	1,875.61	2,485.72					
Fresno storage unit.....	592,011.39	167,095.85	70,139.34	203,833.48		150,922.72			
Net total, excess of returns over costs.....	274,902.26	170,435.64	(48,243.69)	31,018.58		150,922.72			(29,230.99)

1 The "Excess of income over expense" includes the following:

Rental lands—Fresno area.....	\$21,488.51
Sales of surplus Fresno water.....	29,821.10
Revenues from construction activities:	(718.32)
Loss on hospital operations.....	30,581.72
Rental of buildings.....	
Total.....	81,173.02

2 Sale of Fresno water—Contract 179r-1608, city of Havre, 33 years at \$5,000 per year.

MINIDOKA PROJECT

BURLEY, IDAHO

The Minidoka project was authorized by the Secretary under the Reclamation Act of 1902 (32 Stat. 388) on April 23, 1904, and approved by the President on January 5, 1911, in accordance with the act of June 24, 1910 (36 Stat. 836). The Gooding division, originally called Gravity Extension unit, was found feasible by the Secretary on July 2, 1928, and approved by the President on July 3, 1928, pursuant to section 4 of the act of December 5, 1924 (43 Stat. 702).

The Upper Snake River division, originally called Upper Snake River storage project, was found feasible by the Secretary on September 6, 1935, and approved by the President on September 20, 1935, pursuant to the acts referred to in the above paragraph.

The North Side pumping division and the American Falls powerplant were authorized by the act of September 30, 1950 (Public Law 864, 81st Cong.).

As initially developed, the facilities of the Minidoka project included Minidoka Dam, a combined power production, storage, and diversion structure south of the railroad town of Minidoka, Idaho; Jackson Lake Dam and Reservoir, near the headwaters of the South Fork of the Snake River in northwestern Wyoming; and canal and lateral systems of the Gravity and South Side pumping divisions in Cassia and Minidoka Counties, Idaho. Subsequent developments included the raising of Jackson Lake Dam (1913-16) to increase the storage capacity of Jackson Lake Reservoir to 847,000 acre-feet; the dredging of the river channel below the outlet of Jackson Lake; the construction of American Falls Dam (1921-25) with 1,700,000 acre-feet of storage space; construction of the Gooding division (1927-48), Upper Snake River division (1935-40), and the North Side pumping division, which is now in the construction stage.

In 1955 the project furnished full water supplies to some 234,500 irrigable acres and supplemental supplies to some 861,000 irrigable acres.

Most of the power and energy generated on the project during the irrigation season is used for irrigation pumping. Year-around power available from the Boise project together with a block of power available from Palisades project during the irrigation season enables the project to supplement its own nonirrigation season generation to serve seventeen commercial customers and minor project uses.

AMERICAN FALLS RESERVOIR DIVISION

This division consists of the American Falls Dam and Reservoir, which are operated as reserved works by the United States for the benefit of the Minidoka project. Operation and maintenance is financed 93 percent by funds advanced by the water users and 7 percent from appropriated funds.

Repayment contracts.—Thirty-five irrigation districts, companies, and individuals have contracted for the purchase of 1,202,586 acre-feet of the total of 1,700,000 acre-feet capacity of the reservoir. These repayment contracts amount to \$5,312,160, of which \$4,825,271, or 91 percent, has become due and paid on June 30, 1957. In addition, the cost of 400,000 acre-feet of storage capacity in the reservoir has been contracted for by the Gooding division, the repayment of which is included in the Gooding division section of this report. The cost of 23,300 acre-feet of storage space is under contract to the Falls irrigation district (Michaud Flats project). The balance of the storage space or 74,114 acre-feet is allotted to new divisions of the project now under construction or other contracts pending. A portion of the cost of the American Falls Dam (\$293,978) is allocated to future power development.

CONTRACTS

- 1922 to 1926: Twenty-five irrigation districts, companies, and individuals entered into contracts for 735,321 acre-feet of storage and advanced a proportionate share of the estimated construction cost of the reservoir prior to and during the source of construction.
- 1927, February 11: Contract Ilr-115 with Minidoka irrigation district for purchase of 50,000 acre-feet, payable in 60 equal semiannual installments.
- 1927, September 21: Contract with American Falls Reservoir district No. 2 for purchase of 400,000 acre-feet, payable in 80 equal semiannual installments.
- 1931, June 30: Contract Ilr-168 with American Falls Reservoir district No. 1 for purchase of 20,000 acre-feet, payable in 10 installments.
- 1932, May 5, and 1933, May 1: Contracts 12R-1173 with Aberdeen-Springfield Canal Co. for purchase of 2,086 acre-feet, payable at time of purchase.
- 1934, 1938, and 1942: Contracts with Enterprise irrigation district for purchase of 12,000 acre-feet, payable at time of purchase.
- 1938, April 1: Contract Ilr-659 with Rudy Irrigation Canal Co. for purchase of 2,000 acre-feet, payable at time of purchase.
- 1952: Twenty-two irrigation districts and companies contracted for 276,905 acre-feet of storage space pursuant to Public Law 864, 81st Congress, under a 10-year payment period.
- 1955, January 7: Contract 14-06-W-92 with Milner low lift irrigation district for 11,574 acre-feet of storage space under Public Law 864, 81st Congress, payable in 10 equal installments.
- 1955, December 9: Contract with Falls irrigation district for repayment of cost of Michaud Flats project, including cost of 23,300 acre-feet of capacity in American Falls Reservoir, over a repayment period of 50 years. Act of August 31, 1954 (68 Stat. 1062).
- 1957, April 25: Memorandum of agreement with Bureau of Indian Affairs (Fort Hall Indian Agency) for repayment of \$211,310 for 47,700 acre-feet of space in American Falls Reservoir. Repayment to be on nonappropriation cost transfer basis.

Cost and repayment allocations:

Original construction costs.....	\$7, 692, 547
Construction costs financed from operation and maintenance funds.....	36, 052
Subtotal.....	7, 728, 599
Interest and penalties funded.....	202, 001
Operation and maintenance charges funded..	9, 000
Total.....	7, 939, 600
Less:	
Construction revenues.....	76, 437
Cost allocated to future power development.....	293, 978
Construction costs repaid from operation and maintenance assessments.....	36, 052
Subtotal.....	7, 533, 133

Less:

Gooding division.....	\$1, 771, 990
Michaud Flats division.....	103, 218
New divisions and contracts pending (74,114 acre-feet).....	345, 765
Total.....	5, 312, 160

The status of American Falls Reservoir division repayment contracts as of June 30, 1957, is as follows:

Total value of contracted repayment.....	\$5, 100, 850
Total matured charges.....	4, 825, 271
Total matured charges repaid.....	4, 825, 271
Total matured charges unpaid.....	0

GOODING DIVISION

The American Falls Reservoir district No. 2 operates and maintains the irrigation system of the Gooding division, servicing about 98,500 irrigable acres. The United States operates the storage system as reserved works. Water for this division is diverted at Milner Dam into the Milner-Gooding canal.

Repayment contracts.—The main contract between the United States and American Falls Reservoir district No. 2 was made September 21, 1927. This contract was modified by the interim amendatory contract of December 7, 1948, wherein provision was made to apportion the construction costs on the basis of water-supply benefits. The contract was further modified by amendatory contract of October 14, 1955. The contract of October 14, 1955, states the final repayment obligation of the district, including cost of 400,000 acre-feet of storage space in American Falls Reservoir, and the apportionment of this obligation between the "old and river-right" lands and the "new" lands of the division.

Determination of repayment obligation of the Gooding division:

Total cost.....	\$6, 608, 381
Interest and penalties.....	1, 990
Other charges funded.....	75, 008
Total cost.....	6, 685, 379
Less: Construction revenues.....	61, 508
Total repayment obligation.....	6, 623, 871

The status of repayment contracts as of June 30, 1957 is as follows:

Total value of contracted repayment.....	\$6, 623, 871
Total matured charges.....	3, 867, 803
Total matured charges repaid.....	3, 867, 803
Total matured charges unpaid.....	0

Construction repayment history—American Falls Reservoir division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		For current year	Adjustments	Total	For current year	Prior years and adjustments	Total	Cumulative total
1924	\$4,562,782	\$33,607		\$33,607	\$33,607		\$33,607	\$33,607
1925	3,347,638	2,005,684		2,005,684	1,536,621		1,536,621	1,570,228
1926	3,190,331	919,407		919,407	953,014	\$405,776	1,358,790	2,929,018
1927	3,344,376	385,678		385,678	330,064		330,064	3,259,082
1928	3,344,376	0		0	0		0	3,259,082
1929	¹ 3,627,796	33,420		33,420	33,420	85,294	118,714	3,377,796
1930	3,588,379	² 3,575		² 3,575	² 3,575		² 3,575	3,374,221
1931	3,589,093	1,375		1,375	1,375		1,375	3,375,596
1932	3,710,979	³ 35,187	² \$714	34,473	35,187	² 714	34,473	3,410,069
1933	3,717,648	³ 36,768		36,768	36,778	² 9,270	27,508	3,437,577
1934	3,726,938	³ 12,493	² 9,260	3,233	12,493		12,493	3,450,070
1935	3,620,247	³ 45,723		45,723	45,723		45,723	3,495,793
1936	3,768,932	³ 7,664		7,664	6,969		6,969	3,502,762
1937	3,769,697	³ 15,328		15,328	3,034	695	3,729	3,506,491
1938	3,789,346	⁴ 34,978		34,978	20,128	12,294	32,422	3,538,913
1939	3,809,837	⁴ 32,528		32,528	17,467	9,409	26,876	3,565,789
1940	3,809,837	⁴ 15,328		15,328	9,732	9,260	18,992	3,584,781
1941	3,809,837	⁴ 15,328		15,328	9,487		9,487	3,594,268
1942	3,840,813	⁴ 41,882		41,882	37,043	22,679	59,722	3,653,990
1943	3,840,813	16,596		16,596	16,596	4,839	21,435	3,675,425
1944	3,840,813	17,161		17,161	6,068		6,068	3,681,493
1945	3,840,813	17,724		17,724	4,915	11,092	16,007	3,697,500
1946	3,840,813	9,144		9,144	3,034	12,810	15,844	3,713,344
1947	3,840,813	9,102		9,102	9,102	6,110	15,212	3,728,555
1948	3,840,813	6,068		6,068	6,068		6,068	3,734,628
1949	3,840,813	6,068		6,068	6,068		6,068	3,740,691
1950	3,840,813	6,068		6,068	6,068		6,068	3,746,759
1951	3,840,813	6,068		6,068	6,068		6,068	3,752,827
1952	3,840,813	6,068		6,068	6,068		6,068	3,758,895
1953	5,050,296	783,180		783,180	783,180		783,180	4,542,075
1954	5,050,296	55,439		55,439	55,439		55,439	4,597,514
1955	5,100,850	90,793		90,793	90,793		90,793	4,688,307
1956	5,100,850	57,338		57,338	57,338		57,338	4,745,646
1957	5,312,160	79,625		79,625	79,625		79,625	4,825,271
Total		4,835,245	—9,974	4,825,271	4,254,997	570,274	4,825,271	
Collected				4,825,271				
Uncollected				0				

¹ Increase in obligations covers sales of storage space to contractors.² Decrease. Decrease covers amounts deferred under relief acts.³ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for years 1932, \$4,839; 1933, \$10,528; 1934, \$11,092; 1935, \$11,656; 1936, \$6,110.⁴ Charges deferred under acts of August 21, 1937, May 31, 1939, and August 4, 1939, for years 1937, \$23,783; 1938, \$23,783; 1939, \$23,783; 1940, \$23,783; and 1941, \$23,783.

PUBLIC NOTICES AND CONTRACTS

1927, September 21: Contract with American Falls Reservoir district No. 2 for construction of the Gravity extension unit of the Minidoka project.

1933, April 13: Public notice. Construction charges estimated at \$85 per acre, payable in 40 years.

1944, December 30: Public notice. Announcing repayment provision of "new lands" on estimated basis, and availability of water.

1947, March 11: Public notice. Announcing availability of water to new lands and 40-year repayment period on estimated cost of \$90 per acre.

1948, September 14: Public notice. Announcing availability of water to new lands and 40-year repayment period on estimated cost of \$115 per acre.

1948, December 7: Contract with American Falls Reservoir district No. 2 provided for apportionment of water and costs among various types of land and established a limitation as to new lands.

1955, October 14: Contract states final repayment obligation of the district including cost of 400,000 acre-feet of storage space in American Falls Reservoir, the apportionment of this obligation between old and river-right lands and new lands, and provisions for repayment.

Construction repayment history—Gooding division—American Falls Reservoir district No. 2

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		For current year	Adjustments	Total	For current year	Prior years and adjustments	Total	Cumulative total
1929-----	\$7, 723, 500	\$140, 000	-----	\$140, 000	\$140, 000	-----	\$140, 000	\$140, 000
1930-----	7, 029, 890	117, 900	-----	117, 900	117, 900	-----	117, 900	257, 900
1931-----	7, 051, 570	¹ 21, 680	-----	21, 680	21, 680	-----	21, 680	279, 580
1932-----	7, 051, 788	¹ 218	-----	218	218	-----	218	279, 798
1933-----	7, 051, 788	¹ 0	-----	0	0	-----	0	279, 798
1934-----	7, 060, 407	¹ 0	-----	0	0	-----	0	279, 798
1935-----	7, 062, 069	¹ 1, 662	-----	1, 662	1, 662	-----	1, 662	281, 460
1936-----	7, 062, 069	¹ 0	-----	0	0	-----	0	281, 460
1937-----	7, 055, 439	¹ 0	-----	0	0	-----	0	281, 460
1938-----	7, 055, 439	¹ 88, 342	-----	88, 342	88, 342	-----	88, 342	369, 802
1939-----	7, 055, 439	¹ 176, 685	-----	176, 685	105, 916	-----	105, 916	475, 718
1940-----	7, 055, 439	¹ 0	-----	0	0	\$70, 769	70, 769	546, 487
1941-----	7, 055, 439	¹ 88, 343	-----	88, 343	88, 343	-----	88, 343	634, 830
1942-----	7, 055, 439	¹ 176, 685	-----	176, 685	146, 176	-----	146, 176	781, 006
1943-----	7, 055, 439	112, 125	³ \$23, 784	88, 341	88, 342	30, 508	118, 850	899, 856
1944-----	7, 055, 439	176, 685	-----	176, 685	176, 685	-----	176, 685	1, 076, 541
1945-----	² 6, 865, 439	201, 220	-----	201, 220	201, 220	-----	201, 220	1, 277, 761
1946-----	6, 865, 439	201, 220	-----	201, 220	201, 220	-----	201, 220	1, 478, 981
1947-----	6, 865, 439	265, 778	-----	265, 778	201, 220	-----	201, 220	1, 680, 201
1948-----	6, 865, 439	225, 004	-----	225, 004	225, 003	64, 559	289, 562	1, 969, 763
1949-----	6, 865, 439	201, 220	³ 9, 023	192, 197	201, 220	³ 9, 023	192, 197	2, 161, 960
1950-----	6, 865, 439	210, 420	-----	210, 420	210, 420	-----	210, 420	2, 372, 380
1951-----	6, 865, 439	210, 420	-----	210, 420	192, 078	-----	192, 078	2, 564, 458
1952-----	6, 865, 439	210, 420	-----	210, 420	210, 420	18, 342	228, 762	2, 793, 220
1953-----	6, 865, 439	255, 586	-----	255, 586	187, 142	-----	187, 142	2, 980, 362
1954-----	6, 865, 439	167, 544	-----	167, 544	162, 529	68, 444	230, 973	3, 211, 335
1955-----	² 6, 623, 871	197, 580	60, 138	257, 718	197, 580	65, 153	262, 733	3, 474, 068
1956-----	6, 623, 871	197, 580	-----	197, 580	197, 580	-----	197, 580	3, 671, 648
1957-----	6, 623, 871	197, 580	⁴ -1, 425	196, 155	197, 580	⁴ -1, 425	196, 155	3, 867, 803
Total-----		3, 841, 897	25, 906	3, 867, 803	3, 560, 476	307, 327	3, 867, 803	-----
Collected-----			-----	3, 867, 803	-----	-----	-----	-----
Uncollected-----			-----	0	-----	-----	-----	-----

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, \$90,332; 1933, \$176,685; 1934, \$176,685; 1935, \$176,685; 1936, \$88,342. Deferred under acts of Aug. 21, 1937, May 31, 1939, and Aug. 4, 1939, for years 1937, \$88,342; 1938, \$88,342; 1939, \$88,342; 1940, \$88,342; 1941, \$88,342.

² Adjustment in obligation covers decrease in estimated cost.

³ Decrease. Decrease covers amounts deferred under relief acts.

⁴ Decrease. Decrease covers amount transferred to North Side pumping division.

GRAVITY DIVISION

The Gravity division covers some 72,000 acres of irrigable lands in the Minidoka irrigation district on the north side of the Snake River. The individual water users have contracted to repay \$2,846,896 on the construction cost. Repayments commenced in 1908 and on June 30, 1957, \$2,816,274, or 99 percent, had become due. On that date, \$2,815,229 had been paid. The balance of \$1,045 covers delinquencies of a few individuals.

The irrigation system has been operated by the Minidoka irrigation district since the year 1916, and the reserved works of the Minidoka project, comprising storage reservoirs, are operated by the United States.

Power credits from the plant at Lake Walcott due the Gravity division are applied annually on the obligation for American Falls storage water.

Repayment contracts.—Repayment contracts on the Gravity division are with the individual water-users based on the repayment provisions of the public notices. There were originally about 2,000 of these individual contracts, of which approximately 100 are not yet paid out. These contracts generally provide for a 20-year payout period of a \$42 per acre construction charge. The Minidoka irrigation district has assumed liability for repayment of the cost of 50,000 acre-feet of storage space in American Falls Reservoir, as distinguished from the individual water-user's liability for repayment of other project charges.

Construction repayment history—Gravity division—Minidoka irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		For current year	Adjustments	Total	For current year	Prior years and adjustments	Total	Cumulative total
1908		\$135, 546		\$135, 546	\$3, 149		\$3, 149	\$3, 149
1909		132, 535		132, 535			127, 716	130, 865
1910		132, 470		132, 470	383, 551		135, 645	266, 510
1911		138, 055		138, 055			120, 190	386, 700
1912		85, 965	¹ \$362, 120	¹ 276, 155	41, 788	¹ \$212, 030	¹ 170, 242	216, 458
1913		100, 312	¹ 30, 784	69, 528	63, 244	13, 387	76, 631	293, 089
1914		119, 154	¹ 53, 399	65, 755	75, 987	¹ 22, 485	53, 502	346, 591
1915	\$1, 899, 682	38, 089	49, 177	87, 266	25, 558	96, 797	122, 355	468, 946
1916		32, 002	¹ 7, 988	24, 014	22, 901	7, 956	30, 857	499, 803
1917	2, 735, 362	1, 009, 006		117, 564	798, 034		116, 531	616, 334
1918	2, 823, 708			¹ 21, 782			52, 324	668, 658
1919	2, 862, 531			89, 212			84, 057	752, 715
1920	2, 878, 974			83, 459			87, 773	840, 488
1921	2, 880, 068			127, 327			78, 710	919, 198
1922	2, 879, 419			208, 917			106, 791	1, 025, 989
1923	2, 862, 311			136, 432			101, 052	1, 127, 041
1924	2, 857, 766			132, 789			108, 507	1, 235, 548
1925	2, 856, 884			135, 088			62, 289	1, 297, 837
1926	2, 854, 868		134, 853	¹ 281	56, 113	96, 429	152, 542	1, 450, 379
1927	2, 854, 868		136, 181	4	56, 039	90, 102	146, 141	1, 596, 520
1928	2, 854, 868		202, 801	¹ 10, 091	141, 729	152, 744	294, 473	1, 890, 993
1929	2, 789, 045		121, 724	¹ 32, 230	66, 587	29, 741	96, 328	1, 987, 321
1930	2, 703, 415		117, 723	¹ 52, 201	68, 710	26, 503	95, 213	2, 082, 534
1931	2, 701, 467		117, 710	3, 526	62, 802	44, 365	107, 167	2, 189, 701
1932	2, 704, 639		² 116, 770	¹ 12, 633	31, 161	7, 336	38, 497	2, 228, 198
1933	2, 724, 994		² 74, 375	¹ 119, 811	¹ 45, 436	2, 298	26, 162	2, 254, 360
1934	2, 739, 999		² 29, 161	¹ 50, 767	¹ 21, 606	4, 806	24, 004	2, 278, 364
1935	2, 739, 999		² 8, 815	¹ 1, 014	6, 219	251	6, 470	2, 284, 834
1936	2, 754, 717		² 27, 154	¹ 12, 554	9, 345	1, 233	10, 578	2, 295, 412
1937	2, 754, 457		² 75, 260	¹ 18, 649	56, 611	2, 256	54, 787	2, 350, 199
1938	2, 760, 958		111, 725	¹ 4, 272	61, 832	17, 612	79, 444	2, 429, 643
1939	2, 778, 649		95, 134	¹ 3, 979	42, 232	45, 468	87, 700	2, 517, 343
1940	2, 797, 079		66, 281	19	66, 300	51, 512	80, 455	2, 597, 798
1941	2, 809, 554		28, 776	368	29, 144	38, 693	52, 141	2, 649, 939
1942	2, 811, 685		18, 566	¹ 2, 377	16, 189	13, 090	24, 666	2, 674, 605
1943	2, 815, 071		13, 383	194	9, 534	8, 528	18, 062	2, 692, 667
1944	2, 836, 029		14, 447	821	15, 268	4, 642	17, 155	2, 709, 822
1945	2, 846, 206		14, 656	¹ 2, 067	12, 589	¹ 137	12, 576	2, 722, 398
1946	2, 846, 206		13, 018	¹ 959	12, 059	1, 476	12, 876	2, 735, 274
1947	2, 850, 143		9, 289	1, 676	10, 965	2, 063	10, 732	2, 746, 006
1948	2, 851, 788		9, 108		9, 108	3, 799	8, 757	2, 754, 763
1949	2, 850, 871		12, 406	¹ 1, 202	11, 204	4, 155	11, 290	2, 766, 053
1950	2, 850, 205		8, 486	¹ 558	7, 928	1, 335	7, 786	2, 773, 839
1951	2, 849, 455		8, 779	¹ 1, 765	7, 014	1, 200	7, 581	2, 781, 420
1952	2, 849, 656		8, 070		8, 070	1, 991	8, 526	2, 789, 946
1953	2, 849, 656		6, 249		6, 249	1, 440	6, 279	2, 796, 225
1954	2, 849, 793		6, 202		6, 202	1, 893	6, 966	2, 803, 191
1955	2, 846, 896		5, 134	¹ 2, 079	3, 055	¹ 949	3, 249	2, 806, 440
1956	2, 846, 896		4, 852		4, 852	689	4, 573	2, 811, 013
1957	2, 846, 896		4, 047		4, 047	169	4, 216	2, 815, 229
Total		3, 544, 269	- 727, 995	2, 816, 274	2, 274, 871	540, 358	2, 815, 229	
Collected				2, 815, 229				
Uncollected				1, 045				

¹ Decrease. Decreases are due to cancellation of water-right applications and to funding of delinquent charges. 1912 adjustment under 1911 public notice. 1914 Reclamation Extension Act, Aug. 13, 1914.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Total amount deferred calendar years 1931 to 1936, \$383,797.

PUBLIC NOTICES AND CONTRACTS

1907, March 9: Public notice. Construction charge \$22 per acre, payable in 10 equal annual installments.
 1909, March 30: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.

1910, November 25: Public notice. Construction charge \$40 per acre on private and school lands, payable in 10 equal annual installments.
 1911, December 30: Public notice. Construction charge increased to \$30 for all lands and installments

graduated. Private land applied for after 1 year, rate \$40 per acre.

1916, October 2: Public notice. Supplemental construction of drainage works, rate, \$12 per irrigable acre, payable along with regular construction charges.

1916, December 2: Contract with Minidoka irrigation district for taking over operation and maintenance of irrigation system.

1927, February 11: Contract Ilr-115 with Minidoka irrigation district for purchase of 50,000 acre-feet of American Falls storage space, 7,000 acre-feet of Jackson Lake storage space, allowance of power credits and other benefits.

1929, March 19: Contract with Minidoka irrigation district for purchase of additional 810 acre-feet of Jackson Lake storage space to be paid from power profits.

1932, May 21: Supplemental to contract of December 2, 1916, reducing interest rate from 10 to 6 percent.

1936, March 2: Supplemental to contract of February 11, 1927, extending repayment period from 10 years to 60 years.

The status of the Gravity division repayment contracts as of June 30, 1957, is as follows:

Total value of contracted repayment.....	\$2, 846, 896
Total matured charges.....	2, 816, 274
Total matured charges repaid.....	2, 815, 229
Total matured charges unpaid.....	1, 045

JACKSON LAKE RESERVOIR

Nineteen irrigation districts, canal companies, and individuals have contracted to repay a total of \$1,254,433 for the purchase of water from Jackson Lake Reservoir. All of this amount had become due on June 30, 1946, and had been paid to the United States. A large portion of the \$1,366,871 total cost of Jackson Lake Dam was advanced by the Twin Falls Canal Co. and the Kuhn Irrigation & Canal Co. prior to construction.

The United States retains title and operates

Construction repayment history—Jackson Lake Reservoir

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1918.....	\$429, 413	\$69, 518	-----	\$69, 518	\$300, 436	-----	\$69, 518	\$69, 518
1919.....	429, 413	33, 157	-----	33, 157		-----	33, 157	102, 675
1920.....	429, 413	33, 158	-----	33, 158		-----	33, 158	135, 833
1921.....	429, 413	33, 157	-----	33, 157		-----	30, 485	166, 318
1922.....	429, 413	33, 157	-----	33, 157		-----	33, 713	200, 031
1923.....	429, 413	33, 158	-----	33, 158		-----	30, 804	230, 835
1924.....	429, 413	33, 157	-----	33, 157		-----	37, 628	268, 463
1925.....	429, 413	33, 158	-----	33, 158		-----	31, 973	300, 436
1926.....	429, 413	39, 998	-----	39, 998	39, 806	\$1, 186	40, 992	341, 428
1927.....	429, 413	26, 317	-----	26, 317	25, 635	191	25, 826	367, 254
1928.....	429, 413	6, 148	-----	6, 148	5, 775	645	6, 420	373, 674
1929.....	429, 413	6, 148	-----	6, 148	5, 821	410	6, 231	379, 905
1930.....	473, 926	6, 148	-----	6, 148	6, 148	326	6, 474	386, 379
1931.....	473, 926	6, 148	-----	6, 148	6, 148	-----	6, 148	392, 527
1932.....	473, 926	¹ 50, 661	-----	50, 661	46, 536	-----	46, 536	439, 063
1933.....	473, 926	¹ 1, 288	² \$4, 125	² 2, 837	915	-----	915	439, 978
1934.....	473, 926	¹ 2, 023	-----	2, 023	2, 023	373	2, 396	442, 374
1935.....	474, 346	¹ 6, 148	-----	6, 148	2, 023	-----	2, 023	444, 397
1936.....	475, 232	¹ 2, 022	² 4, 125	² 2, 103	2, 022	-----	2, 022	446, 419
1937.....	474, 366	¹ 6, 148	-----	6, 148	2, 023	-----	2, 023	448, 442
1938.....	474, 371	5, 134	² 2, 062	3, 072	752	2, 062	2, 814	451, 256
1939.....	474, 371	4, 259	-----	4, 259	-----	4, 383	4, 383	455, 639
1940.....	474, 371	4, 135	² 4, 259	² 124	4, 135	-----	4, 135	459, 774
1941.....	474, 371	1, 000	-----	1, 000	1, 000	-----	1, 000	460, 774
1942.....	474, 371	3, 000	-----	3, 000	3, 000	-----	3, 000	463, 774
1943.....	474, 371	3, 000	-----	3, 000	3, 000	-----	3, 000	466, 774
1944.....	474, 371	3, 000	-----	3, 000	3, 000	-----	3, 000	469, 774
1945.....	474, 371	3, 000	-----	3, 000	3, 000	-----	3, 000	472, 774
1946.....	474, 371	1, 597	-----	1, 597	1, 597	-----	1, 597	474, 371
1957 ³	³ 1, 254, 433	-----	³ 780, 062	780, 062	-----	780, 062	780, 062	1, 254, 433
Total.....	-----	488, 942	765, 491	1, 254, 433	464, 795	789, 638	1, 254, 433	-----
Collected.....	-----	-----	-----	1, 254, 433	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	0	-----	-----	-----	-----

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$4,383; 1932, \$5,011; 1933, \$4,135; 1934, \$4,135, and 1935, \$4,135; and 1936, \$2,068.

² Decrease. Decrease covers amounts deferred under relief acts.

³ Increase. Increase covers payment made by Kuhn Irrigation district under contract Ilr-494 dated Feb. 25, 1913, that has been accounted for as a contribution until fiscal year 1957.

Jackson Lake Dam and Reservoir, as well as American Falls Dam and Reservoir, as storage and control facilities on the Snake River for the benefit of project lands. Operation and maintenance is financed from both advanced and appropriated funds.

CONTRACTS

- 1917: 16 irrigation districts, canal companies, and individuals, entered into contracts for 62,000 acre-feet of storage, cost payable in 10 equal annual installments. Two contractors later secured extension to 20 years.
- 1926, March 25: Contract with Burley irrigation district for purchase of 50,000 acre-feet, payable from power profits.
- 1927, February 11: Contract Ilr-115 with Minidoka irrigation district for purchase of 7,810 acre-feet payable from power profits.

NORTH SIDE PUMPING DIVISION

The North Side pumping division is located in Minidoka and Jerome Counties, north of the Snake River in south-central Idaho. The division was authorized for construction by act of September 30, 1950 (64 Stat. 1083). The project plan includes the construction of facilities to irrigate 67,100 acres of public land by ground water pumping, and facilities to pump from the Snake River to 13,650 acres, for which 47,593 acre-feet of storage space in American Falls Reservoir and 90,000 acre-feet of storage space in Palisades Reservoir have been reserved. As of June 30, 1956, water has been made available to 26,651 acres of land.

Repayment contracts.—Total cost of the division is estimated to be \$11,395,000, including \$71,000 transferred from American Falls Reservoir and \$810,000 transferred from Palisades Reservoir for storage space. No repayment contracts are in effect due to the fact that no irrigation district has yet been formed on the division. Each homestead entryman is required to execute an "Interim Repayment Contract" which provides for a repayment period of 50 years. The irrigation system is presently operated by the United States.

PUBLIC NOTICES AND CONTRACTS

——— Recordable and interim repayment contract—each homestead entryman is required to execute a contract providing for payment of operation and maintenance charges in advance; a 50-year repayment

period for construction charges; and agreement to form and become a party to an irrigation district to operate the irrigation system.

- 1953, April 6: Public Notice No. 44 announcing availability of water to 7,289 acres and opening these lands to homestead entry.
- 1954, March 5: Public Notice No. 45 announcing availability of water to 8,894.3 acres and opening these lands to homestead entry.
- 1955, February 7: Public Notice No. 46 announcing the availability of water to 10,467.5 acres of public lands and opening these lands to entry.

SOUTH SIDE PUMPING DIVISION

Distribution facilities, including pump lifts, to serve some 48,000 irrigable acres have been operated by the Burley irrigation district since 1926. Storage and power facilities are operated by the United States as reserved works. Operation and maintenance of the reserved works is financed from funds advanced by the irrigation district. Much of the repayment obligation of the district has been met from power revenues distributed from the Minidoka powerplant.

Repayment contracts.—The Burley irrigation district assumed a contract obligation of \$3,056,119 for construction of the South Side pumping division, on the south side of the Snake River. In 1954 accumulated credits of power revenues were applied in sufficient amount to discharge the remaining unpaid obligation of the Districts' construction cost.

PUBLIC NOTICES AND CONTRACTS

- 1915, November 3: Public notice. Construction charge \$56.50 and \$57.50 per acre, payable in 20 graduated annual instalments.
- 1926, March 15: Contract Ilr-392; with Burley irrigation district under which the District assumed obligations under individual water-right applications. Delinquent charges and penalties funded. Repayment to be on crop production basis, annual payment 5 percent of gross average acre income for preceding 10 years.

The status of the South Side pumping division repayment contracts as of June 30, 1957, is as follows:

Total value of contracted repayment.....	\$3, 056, 119
Total matured charges.....	3, 056, 119
Total matured charges repaid.....	3, 056, 119
Total matured charges unpaid.....	0

Construction repayment history—South Side pumping division—Burley irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		For current year	Adjustments	Total	For current year	Prior years and adjust- ments	Total	Cumulative total
1916		\$4, 249		\$4, 249	\$4, 249		\$4, 249	\$4, 249
1917	\$2, 704, 557	57, 118		57, 118	55, 736		55, 736	59, 985
1918	2, 727, 526	49, 730		49, 730	44, 663		44, 663	104, 648
1919	2, 752, 009	53, 187		53, 187	52, 837		52, 837	157, 485
1920	2, 760, 547	728, 789		50, 135	370, 404		50, 708	208, 193
1921	2, 767, 475			97, 407			38, 520	246, 713
1922	2, 767, 159			108, 793			77, 989	398, 522
1923	2, 747, 341			158, 127			73, 820	324, 702
1924	2, 747, 341			153, 019			98, 120	496, 642
1925	2, 750, 884			161, 308			31, 247	527, 889
1926	2, 756, 970	162, 822	\$39	162, 861	39, 352	\$32, 328	71, 680	599, 569
1927	1 3, 082, 770	112, 631	2 452, 325	2 339, 694	74, 629	3, 986	78, 615	678, 184
1928	3, 082, 770	112, 529	2 237	112, 292	112, 529	37, 819	150, 348	828, 532
1929	3, 082, 770	108, 126		108, 126	82, 314		82, 314	910, 846
1930	3, 082, 110	105, 983	2 121	105, 862	105, 862	25, 812	131, 674	1, 042, 520
1931	3, 087, 052	59, 105		59, 105	59, 105		59, 105	1, 101, 625
1932	3, 080, 139	100, 602		100, 602	100, 602		100, 602	1, 202, 227
1933	3, 080, 139	97, 393		97, 393	97, 394		97, 394	1, 299, 621
1934	3, 080, 139	90, 997		90, 997	90, 997		90, 997	1, 390, 618
1935	3, 075, 139	85, 581		85, 581	85, 581		85, 581	1, 476, 199
1936	3, 075, 139	83, 533		83, 533	83, 533		83, 533	1, 559, 732
1937	3, 075, 139	64, 291		64, 291	64, 291		64, 291	1, 624, 023
1938	3, 075, 139	61, 823		61, 823	37, 409		37, 409	1, 661, 432
1939	3, 075, 139	62, 877		62, 877	1, 931		1, 931	1, 663, 363
1940	3, 075, 139	63, 924		63, 924	63	30, 856	30, 919	1, 694, 282
1941	3, 075, 139	62, 855		62, 855	14		14	1, 694, 296
1942	3, 075, 139	62, 855		62, 855	62, 855	181, 206	244, 061	1, 938, 357
1943	3, 075, 139	67, 419		67, 419	67, 419		67, 419	2, 005, 776
1944	3, 075, 139	78, 438		78, 438	32, 413		32, 413	2, 038, 189
1945	3, 075, 139	91, 594		91, 594	21, 489		21, 489	2, 059, 678
1946	3, 075, 139	99, 180		99, 180	99, 180	116, 129	215, 309	2, 274, 987
1947	3, 075, 139	108, 068	50, 565	158, 633	108, 068	50, 565	158, 633	2, 433, 620
1948	3, 075, 139	111, 219		111, 219	111, 219		111, 219	2, 544, 839
1949	3, 056, 119	103, 516	3 6, 196	97, 320	103, 516	3 6, 196	97, 320	2, 642, 159
1950	3, 056, 119	103, 887		103, 887	103, 887		103, 887	2, 746, 046
1951	3, 056, 119	96, 255		96, 255	96, 255		96, 255	2, 842, 301
1952	3, 056, 119	84, 937		84, 937	84, 937		84, 937	2, 927, 238
1953	3, 056, 119	63, 509		63, 509	63, 509		63, 509	2, 990, 747
1954	3, 056, 119	40, 445		40, 445	40, 445		40, 445	3, 031, 192
1955	3, 056, 119	24, 927		24, 927	24, 927		24, 927	3, 056, 119
Total		3, 464, 394	-408, 275	3, 056, 119	2, 583, 614	472, 505	3, 056, 119	
Collected				3, 056, 119				
Uncollected				0				

¹ Increase in obligation due to funding of delinquent operation and maintenance charges and penalties.² Decrease. Decreases due to funding of delinquent charges under 1926 contract.³ Adjustment of obligation and distribution of credits.

UPPER SNAKE RIVER STORAGE DIVISION

The United States operates the reserved works, i. e., storage reservoirs, and the Fremont-Madison irrigation district operates the distribution system which was built with private funds and serves 12,000 irrigable acres. The district advances funds for Government operation of the reservoirs. Construction was authorized under the provisions of the Warren Act of 1911 (36 Stat. 925) by a finding

of feasibility dated September 6, 1935, which was approved by the President on September 20, 1935.

Repayment contracts.—In 1935 the Fremont-Madison irrigation district contracted with the United States to pay for the construction of Island Park and Grassy Lake Dams and Reservoirs on the Upper Snake River in Idaho and Wyoming, respectively. Repayments under the contract commenced in 1940. The total construction obligation is \$2,702,417, and as of June 30, 1957,

a total of \$1,228,118, or 45 percent, had been paid. The project is current in its payments.

PUBLIC NOTICE AND CONTRACT

1935, July 15: Contract with Fremont-Madison irrigation district. Contract covers construction of Island Park and Grassy Lake Reservoirs. Payment to be made in 40 equal annual installments.

1950, September 19: Final cost notice to Fremont-Madison irrigation district, \$2,702,417.

The summary of status of Upper Snake River storage repayment:

Total value of contracted repayment.....	\$2, 702, 417
Total matured charges.....	1, 228, 118
Total matured charges repaid.....	1, 228, 118
Total matured charges unpaid.....	0

Construction repayment history—Upper Snake River storage division—Fremont-Madison irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		For current year	Adjustments	Total	For current year	Prior years and adjustments	Total	Cumulative total
1936.....	\$3, 000, 000							
1937.....	3, 000, 000							
1938.....	3, 000, 000							
1939.....	3, 000, 000							
1940.....	3, 000, 000	\$35, 750		\$35, 750				
1941.....	3, 000, 000	69, 000	¹ \$49, 550	19, 450	\$35, 842		\$35, 842	\$35, 842
1942.....	3, 000, 000	73, 830		73, 830	36, 908	\$19, 358	56, 266	92, 108
1943.....	3, 000, 000	73, 852		73, 852	64, 931	36, 922	101, 853	193, 961
1944.....	3, 000, 000	73, 830		73, 830	73, 830	8, 921	82, 751	276, 712
1945.....	² 2, 760, 000	73, 830		73, 830	73, 830		73, 830	350, 542
1946.....	2, 760, 000	73, 830		73, 830	73, 830		73, 830	424, 372
1947.....	2, 760, 000	73, 830	36, 915	110, 745	73, 830	36, 915	110, 745	535, 117
1948.....	2, 760, 000	73, 830		73, 830	73, 830		73, 830	608, 947
1949.....	2, 760, 000	73, 830		73, 830	73, 830		73, 830	682, 777
1950.....	2, 760, 000	73, 830		73, 830	73, 830		73, 830	756, 607
1951.....	² 2, 702, 417	69, 429		69, 429	69, 429		69, 429	826, 036
1952.....	2, 702, 417	67, 014		67, 014	67, 014		67, 014	893, 050
1953.....	2, 702, 417	67, 013		67, 013	67, 013		67, 013	960, 063
1954.....	2, 702, 417	67, 014		67, 014	67, 014		67, 014	1, 027, 077
1955.....	2, 702, 417	67, 013		67, 013	67, 013		67, 013	1, 094, 090
1956.....	2, 702, 417	67, 014		67, 014	67, 014		67, 014	1, 161, 104
1957.....	2, 702, 417	67, 014		67, 014	67, 014		67, 014	1, 228, 118
Total.....		1, 240, 753	—12, 635	1, 228, 118	1, 126, 002	102, 116	1, 228, 118	
Collected.....				1, 228, 118				
Uncollected.....				0				

¹ Decrease. Part of construction charges for calendar year 1939, \$48,300, deferred under act of August 4, 1939.

² Adjustment of obligation covers reduction in estimated cost of construction.

Minidoka project—repayment contract summary

Division	Construction obligation	Funded charges	Total repayment obligation
Existing contracts:			
Upper Snake River storage.....	\$2, 696, 085	\$6, 333	\$2, 702, 418
Gooding.....	6, 546, 518	77, 353	6, 623, 871
American Falls Reservoir.....	5, 110, 159	202, 001	5, 312, 160
Gravity.....	2, 821, 240	25, 656	2, 846, 896
Jackson Lake.....	1, 253, 988	445	1, 254, 433
South Side pumping.....	2, 708, 528	347, 591	3, 056, 119
Total.....	21, 136, 518	659, 379	21, 795, 897
Charges included in construction.....	—339, 354	339, 354	0
Total, repayment contracts.....	20, 797, 164	998, 733	21, 795, 897
Pending contracts:			
American Falls Reservoir.....	¹ 137, 885		¹ 137, 885
North Side pumping division.....	11, 337, 534	57, 466	11, 395, 000
Grand total.....	32, 272, 583	1, 056, 199	33, 328, 782

¹ Does not include costs transferred to Michaud Flats project and North Side pumping division.

Minidoka project—Cost and repayment allocation

Item	Gravity division	South Side pumping division	Jackson Lake Reservoir division	American Falls Reservoir division	Upper Snake River storage division	Gooding division	North Side pumping division	American Falls power plant	Power units 1-6	Power unit 7	Movable equipment	Nonreimbursable (recreation)	Total
Total estimated construction costs	\$2,850,377	\$2,930,356	\$889,742	\$5,457,743	\$2,713,687	\$6,608,381	\$11,337,534	\$350,958	\$2,524,784	\$882,044	\$202,137	\$27,978	\$36,775,921
Funded charges	29,865	673,736	445	211,001	6,333	77,353	57,466						1,066,199
Total estimated costs	2,880,442	3,604,092	890,187	5,668,744	2,720,020	6,685,734	11,395,000	350,958	2,524,784	882,044	202,137	27,978	37,832,120
Deductions:													
Water users equity	48,706	561,657	70,717	142,398	5,919	61,509	152,130		\$1,331,839		4,252		2,379,127
Repayment reductions authorized		2,288							1,209				2,288
Contributions													1,209
Depreciation of movable equipment											123,660		157,085
Nonreimbursable plant									5,499			(5,499)	
Net reimbursable costs	2,831,736	3,040,147	819,470	5,526,346	2,714,101	6,624,225	11,209,495	350,958	1,186,237	882,044	74,225	33,477	35,292,461
Repayment contracts at June 30, 1957	2,846,896	3,056,119	1,254,433	5,312,160	2,702,418	6,623,871	11,395,000						321,795,897
Repayment contracts anticipated				137,885									\$11,332,885
Total anticipated power revenues									\$4,731,164	2,509,576			7,240,740
Adjustments to be made ¹	15,160	15,972	434,963	(76,301)	(11,683)	(354)	185,505	(350,958)	\$3,544,927	\$1,627,532	(74,225)	(33,477)	5,277,061

¹ Includes penstock costs American Falls Dam, \$293,978, and Investigations costs, \$56,980.

² Includes construction costs, \$10,626,000 (1958 congressional justification) plus Fallsades storage, \$698,000 (90,000 acre-feet at \$7.75) and American Falls storage, \$71,000 (net).

³ The net revenues from irrigation water users is \$33,328,782, \$21,795,897 plus \$11,532,885.

⁴ The total power revenue is \$6,063,003, water users equity \$1,331,839, plus \$4,731,164.

⁵ Gravity division—surplus when existing individual water right accounts pay out.

South Side pumping division—surplus based on complete payout.

Jackson Lake Reservoir division—surplus is represented primarily by sale to other contractors of 102,000 acre-feet of space originally reserved for North Side pumping division. At the time a repayment contract is negotiated with North Side water users, this surplus will be applied.

American Falls Reservoir division—\$137,885 excludes sale of space to Michael Falls project (\$103,218) and North Side pumping division (\$207,880 gross). Costs have not been transferred to the Mlebaud

Flats project, but \$103,218 is included in the total estimated cost of that project and temporarily in costs of American Falls Dam.

Upper Snake River storage division—deficit exists because of repayment contract limitation concerning investigations costs.

North Side pumping division—surplus will be applied when repayments contract is negotiated for American Falls powerplant.

Revenues when powerplant is built.

Movable equipment balance will be repaid by future depreciation charges.

⁶ The earned surplus is \$3,011,148, \$3,544,927 less \$527,071 of units 1-6 costs covered in Gravity and South Side pumping divisions, \$1,209 and \$5,499.

⁷ The earned surplus is \$1,348,316, \$1,627,532 less 3 percent interest \$279,216.

Payout study—Minidoka project

Fiscal year	Power										Irrigation		Recapitulation							
	Net operating revenues	Units 1—6					Unit 7					Power revenue credits (units 1—6)		Net project revenues	Earned surplus (cumulative)					
		Repayment components of net power revenues			Investment repayment from power revenues		Net operating revenues	Repayment components of net power revenues		Investment repayment from power revenues	Earned surplus (cumulative)									
		Interest, 3 per-	Principal		Interest-bearing electric plant	Interest-free aid to irrigation plant		Interest, 3 per-	Principal							In service at end of year	Balance to be repaid			
Through—																				
1956	\$3,939,356	0	\$1,688,330	\$1,688,330	0	\$561,229	0	\$1,688,797	0	\$671,076	\$206,215	\$464,861	\$882,044	\$417,183	0	\$15,921,115	\$20,804,525	\$4,883,410	\$3,939,356	\$16,592,191
1957	51,247	0	388,782	2,077,112	0	564,743	0	1,348,748	0	48,000	12,515	35,485	882,044	381,698	0	1,126,903	21,795,897	4,747,879	51,247	1,174,903
1958	42,700	0	41,500	2,118,612	0	571,243	0	1,343,448	0	47,000	10,420	36,580	882,044	310,769	0	326,002	21,795,897	4,231,877	42,700	371,802
1959	44,700	0	362,000	2,480,612	0	571,243	0	1,026,148	0	47,000	9,323	38,437	882,044	272,292	0	326,002	21,933,782	4,234,088	44,700	372,674
1960	60,500	0	0	2,480,612	0	571,243	0	1,086,648	0	48,600	8,169	40,431	882,044	231,861	0	359,374	21,933,782	3,514,980	60,500	407,534
1961	64,500	0	0	2,480,612	0	571,243	0	1,151,148	0	50,300	6,956	43,344	882,044	238,601	0	359,374	21,933,782	3,514,980	64,500	407,974
1962	64,500	0	0	2,480,612	0	571,243	0	1,215,648	0	51,700	5,656	46,044	882,044	188,517	0	373,630	22,657,023	3,864,424	64,500	424,097
1963	66,500	0	0	2,480,612	0	571,243	0	1,282,148	0	51,700	4,274	47,426	882,044	142,473	0	373,630	22,657,023	3,490,794	66,500	425,330
1964	66,500	0	0	2,480,612	0	571,243	0	1,415,148	0	51,700	2,851	48,849	882,044	95,047	0	325,097	22,962,409	3,471,083	66,500	425,330
1965	66,500	0	0	2,480,612	0	571,243	0	1,481,648	0	51,700	1,386	46,198	882,044	46,198	0	200,143	24,217,568	4,526,069	66,500	376,797
1966	66,500	0	0	2,480,612	0	571,243	0	1,548,148	0	51,700	0	0	882,044	0	0	200,143	24,217,568	4,526,069	66,500	376,797
1967	66,500	0	0	2,480,612	0	571,243	0	1,614,648	0	51,700	0	0	882,044	0	0	226,268	25,694,702	5,776,965	66,500	251,848
1968	66,500	0	0	2,480,612	0	571,243	0	1,681,148	0	51,700	0	0	882,044	0	0	285,510	28,817,844	8,614,597	66,500	337,210
1969	66,500	0	0	2,480,612	0	571,243	0	1,747,648	0	51,700	0	0	882,044	0	0	352,952	32,199,890	11,643,681	66,500	404,652
1970	66,500	0	0	2,480,612	0	571,243	0	1,814,148	0	51,700	0	0	882,044	0	0	374,671	33,328,782	12,397,912	66,500	426,371
1971	66,500	0	0	2,480,612	0	571,243	0	1,880,648	0	51,700	0	0	882,044	0	0	339,507	33,328,782	11,718,691	66,500	391,207
1972	66,500	0	0	2,480,612	0	571,243	0	1,947,148	0	51,700	0	0	882,044	0	0	339,234	33,328,782	11,379,457	66,500	391,207
1973	66,500	0	0	2,480,612	0	571,243	0	2,013,648	0	51,700	0	0	882,044	0	0	339,234	33,328,782	11,040,223	66,500	390,934
1974	66,500	0	0	2,480,612	0	571,243	0	2,080,148	0	51,700	0	0	882,044	0	0	339,234	33,328,782	10,700,989	66,500	390,934
1975	66,500	0	0	2,480,612	0	571,243	0	2,146,648	0	51,700	0	0	882,044	0	0	339,234	33,328,782	10,361,755	66,500	390,934
1976	66,500	0	0	2,480,612	0	571,243	0	2,213,148	0	51,700	0	0	882,044	0	0	339,234	33,328,782	10,022,521	66,500	390,934
1977	66,500	0	0	2,480,612	0	571,243	0	2,279,648	0	51,700	0	0	882,044	0	0	339,234	33,328,782	9,683,287	66,500	390,934
1978	66,500	0	0	2,480,612	0	571,243	0	2,346,148	0	51,700	0	0	882,044	0	0	339,234	33,328,782	9,344,053	66,500	390,934
1979	66,500	0	0	2,480,612	0	571,243	0	2,412,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	8,732,599	66,500	323,920
1980	66,500	0	0	2,480,612	0	571,243	0	2,479,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	8,460,379	66,500	323,920
1981	66,500	0	0	2,480,612	0	571,243	0	2,545,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	8,188,159	66,500	323,920
1982	66,500	0	0	2,480,612	0	571,243	0	2,612,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	7,915,939	66,500	323,920
1983	66,500	0	0	2,480,612	0	571,243	0	2,678,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	7,643,719	66,500	323,920
1984	66,500	0	0	2,480,612	0	571,243	0	2,745,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	7,371,499	66,500	323,920
1985	66,500	0	0	2,480,612	0	571,243	0	2,811,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	7,099,279	66,500	323,920
1986	66,500	0	0	2,480,612	0	571,243	0	2,878,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	6,827,059	66,500	323,920
1987	66,500	0	0	2,480,612	0	571,243	0	2,944,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	6,554,839	66,500	323,920
1988	66,500	0	0	2,480,612	0	571,243	0	3,011,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	6,282,619	66,500	323,920
1989	66,500	0	0	2,480,612	0	571,243	0	3,077,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	6,010,399	66,500	323,920
1990	66,500	0	0	2,480,612	0	571,243	0	3,144,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	5,738,179	66,500	323,920
1991	66,500	0	0	2,480,612	0	571,243	0	3,210,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	5,465,959	66,500	323,920
1992	66,500	0	0	2,480,612	0	571,243	0	3,277,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	5,193,739	66,500	323,920
1993	66,500	0	0	2,480,612	0	571,243	0	3,343,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	4,921,519	66,500	323,920
1994	66,500	0	0	2,480,612	0	571,243	0	3,410,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	4,649,299	66,500	323,920
1995	66,500	0	0	2,480,612	0	571,243	0	3,476,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	4,377,079	66,500	323,920
1996	66,500	0	0	2,480,612	0	571,243	0	3,543,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	4,104,859	66,500	323,920
1997	66,500	0	0	2,480,612	0	571,243	0	3,609,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	3,832,639	66,500	323,920
1998	66,500	0	0	2,480,612	0	571,243	0	3,676,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	3,560,419	66,500	323,920
1999	66,500	0	0	2,480,612	0	571,243	0	3,742,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	3,288,199	66,500	323,920
2000	66,500	0	0	2,480,612	0	571,243	0	3,809,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	3,015,979	66,500	323,920
2001	66,500	0	0	2,480,612	0	571,243	0	3,875,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	2,743,759	66,500	323,920
2002	66,500	0	0	2,480,612	0	571,243	0	3,942,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	2,471,539	66,500	323,920
2003	66,500	0	0	2,480,612	0	571,243	0	4,008,648	0	51,700	0	0	882,044	0	0	272,220	33,328,782	2,199,319	66,500	323,920
2004	66,500	0	0	2,480,612	0	571,243	0	4,075,148	0	51,700	0	0	882,044	0	0	272,220	33,328,782	1,927,099	66,500	323,920

MIRAGE FLATS PROJECT

HAY SPRINGS, NEBR.

The construction of the Mirage Flats project in Dawes and Sheridan Counties of Nebraska was approved by the President on April 26, 1940, under terms of the Water Conservation and Utilization provisions of the 1940 Interior Department Appropriation Act of May 10, 1939 (53 Stat. 685). Resumption of construction to complete project was approved by the President July 13, 1944.

The project was developed to irrigate, rehabilitate, and thereby stabilize 11,670 acres of land previously dry-farmed. Project features include Box Butte Dam and Reservoir, Dunlap Diversion Dam, Mirage Flats Canal, four laterals and the necessary drainage systems.

The total cost of constructing the Mirage Flats project was \$3,061,626, excluding Farm Security Administration costs, and contributions by WPA and CCC. Nine hundred and eighty-five thousand dollars is reimbursable as confirmed in the findings of the Secretary of the Interior dated June 15, 1944, made pursuant to the July 16, 1943, amendment (57 Stat. 566) to the WCU Act of August 11, 1939 (53 Stat. 1418) as amended by the act of October 14, 1940. This finding was approved by the President on July 13, 1944. A total of \$204,502 was transferred to the Farm Security Administration of the Department of Agriculture for land development, \$170,000 of which is reimbursable and will be recovered in the sale of the project lands by the Soil Conservation

Service. The remaining \$815,000 was utilized by the Bureau of Reclamation in constructing the project works. The irrigation project was completed in 1946.

Operation and maintenance of the project was transferred to the Mirage Flats irrigation district January 1, 1951.

Repayment contracts.—The original Mirage Flats irrigation district repayment contract was made December 28, 1950. The contract specifies the repayment of \$815,000, plus whatever portion of \$31,300 that may have been expended by the United States for equipment and machinery for operation and maintenance of the project on or before the district took over the care, operation and maintenance of the project works on January 1, 1951. This amounts to \$26,918.

The contract is to be amended in accordance with the act of August 21, 1957 (71 Stat. 402): (a) To provide for the application of \$12,642 of accumulated development period credits toward reduction of a current delinquency in construction charge payment, (b) to reduce the 38th installment to \$24,890, (c) to a 39th payment of any balance in the construction charge obligation, and (d) to include a variable payment provision if desired by the district.

CONTRACT

1950, December 28: Contract I81r-1415 with Mirage Flats irrigation district for \$815,000 plus other costs prior to January 1, 1951.

The summary of status of the Mirage Flats irrigation district repayment contract:

Total value of contracted repayment for irrigation works.....	\$815, 000
Actual equipment cost under repayment contract.....	26, 918
Total.....	841, 918
Total matured charges.....	42, 780
Total matured charges repaid.....	31, 390
Total matured charges unpaid.....	11, 390

Payout schedule.—Following termination of the 5-year development period, construction repay-

ment is scheduled in 38 successive annual installments as follows:

Installment No.	Amount
1-4, inclusive.....	\$1, 000
5.....	18, 890
6.....	19, 890
7.....	20, 890
8.....	22, 890
9-12, inclusive.....	23, 890
13-38, inclusive.....	24, 890
39, balance of construction obligation.....	(¹)

¹ This amount currently would be \$12,658.

Construction repayment history¹

Fiscal year	Total obligation	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1951.....	\$841, 918	0	0	0	0	0	0	0
1952.....	841, 918	\$1, 000	0	\$1, 000	\$1, 000	0	\$1, 000	\$1, 000
1953.....	841, 918	1, 000	0	1, 000	1, 000	0	1, 000	2, 000
1954.....	841, 918	1, 000	0	1, 000	1, 000	0	1, 000	3, 000
1955.....	841, 918	1, 000	0	1, 000	1, 000	0	1, 000	4, 000
1956.....	841, 918	18, 890	0	18, 890	7, 500	0	7, 500	11, 500
1957.....	841, 918	19, 890	0	19, 890	19, 890	0	19, 890	31, 390
Total.....		42, 780		42, 780	31, 390		31, 390	
Collected.....				31, 390				
Uncollected.....				11, 390				

¹ Prior to 1952, the Mirage Flats Cooperative Association, lessee of the acreage, paid for water delivered at rates fixed by the Commissioner of the Bureau of Reclamation. Accumulated excess of income over expense of \$12,662.40, \$12,642 of which is to be applied to the current delinquency plus interest per act of Aug. 21, 1957 (71 Stat. 402).

MISSOULA VALLEY PROJECT

MISSOULA, MONT.

The construction of the Big Flat unit of the Missoula Valley project in Missoula County, Mont., was approved by the President on May 10, 1944, under authority of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended, particularly by the act of July 16, 1943.

The Big Flat unit was developed to furnish irrigation water to 900 acres of previously unirrigated lands. Facilities consist of a canal diverting water from the Bitterroot River at a point 5 miles southwest of Missoula, Mont.

The total actual cost of constructing the Big Flat unit was \$278,321. Under authority of the Water Conservation and Utilization Act, \$45,000 of this amount has been established as the reimbursable obligation of the Big Flat irrigation district, and the remainder, totaling \$233,321 has been declared nonreimbursable.

The Bureau of Reclamation operated the system during a 5-year development period. Operation by water users began January 1, 1955.

Repayment contract.—The Big Flat irrigation district contract was signed April 2, 1945. This contract provides for repayment of \$45,000 in 80

semiannual installments following a 5-year development period. Development period accruals and collections were \$3,000, \$2,261, \$1,859, \$2,069, and \$1,564 for fiscal year 1950 through fiscal year 1954, respectively. The first payment was made in 1956 and repayment will be completed in 1995.

PUBLIC NOTICES AND CONTRACTS

1945, April 2: Contract Ilr-1434 with Big Flat irrigation district for repayment of \$45,000 allocated as reimbursable.

1949, November 25: Public notice. Announcing development period as the 5-year period commencing January 1, 1950.

The summary of status of repayment contract:

Total value of contracted repayment.....	\$45, 000
Total matured charges.....	844
Total matured charges repaid.....	633
Total matured charges unpaid.....	211

The cost and repayment allocation:

Total project cost.....	\$278, 321
Reimbursable costs: Irrigation.....	45, 000

Nonreimbursable costs: Water Conserva- tion and Utilization Act.....	233, 321
---	----------

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative Total
1956.....	\$45, 000	\$422	-----	\$422	\$422	-----	\$422	\$422
1957.....	45, 000	422	-----	422	211	-----	211	633
Total.....	-----	844	-----	844	633	-----	633	633
Collected.....	-----	-----	-----	633	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	211	-----	-----	-----	-----

MISSOURI RIVER BASIN PROJECT

TEN STATES

The initial stages of the Missouri River Basin project were authorized by the Flood Control Act of December 22, 1944 (58 Stat. 887, Public Law 534, 78th Cong., 2d sess.), which approved the general comprehensive plan set forth in Senate Document 191 and House Document 475, as revised and coordinated by Senate Document 247, 78th Congress. The comprehensive plan was authorized by the Flood Control Act of July 24, 1946 (60 Stat. 634), and subsequent legislation for the conservation, control, and use of water resources in the entire Missouri River Basin. The justifiable and beneficial uses of these water resources which are being considered include flood control, aids to navigation, irrigation of approximately 3,335,200 acres of new land, furnishing a supplemental water supply to approximately 483,800 acres of land, generation of power from plants with a total installed capacity of 2,414,700 kilowatts, municipal and industrial water supplies, stream-pollution abatement, sediment control, preservation and enhancement of fish and wildlife, and creation of recreational opportunities.

Only the divisions or units which have been constructed or are under construction are described here.

The total estimated construction cost and tentative allocation of those costs for the entire Missouri River Basin project are presented in the table, "Allocation and Repayment of Costs." In the payout study for the Missouri River Basin project as presented here, the "net operating revenues" are the revenues derived from the sale of electric energy from the integrated power system of the Missouri River Basin market area. The power systems of the Colorado-Big Thompson, Kendrick, Riverton, and Shoshone projects have been integrated with the Missouri River Basin project for the purposes of marketing the power produced from these projects with the Missouri

River Basin project acting as the marketing agent. In return for all the power generated on the five integrated projects the Missouri River Basin project returns to each project revenues sufficient to cover the annual operating expenses and reserve for replacement of the production facilities and allow a net operating revenue great enough to repay the construction costs for the whole project as though it was operating individually.

The Fort Peck project has been included in the Missouri River Basin project payout study for repayment purposes. The Fort Peck power system has been integrated with the Missouri River Basin project to serve a common market area.

ANGOSTURA UNIT—CHEYENNE DIVISION, SOUTH DAKOTA

Angostura Dam and Reservoir, located on the Cheyenne River in Fall River County, S. Dak., was authorized initially by the President on February 19, 1941, under the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended, and it was reauthorized under the Flood Control Act of 1944 (58 Stat. 887) as a unit of the Missouri River Basin project. Angostura Dam and Reservoir provides a water supply for 12,154 acres of irrigable land along the Cheyenne River in Fall River and Custer Counties, S. Dak., and land in the undeveloped Cheyenne pumping units which lie downstream from the reservoir. Other purposes of the reservoir include power production, flood control along the Cheyenne River, fish and wildlife conservation and recreational opportunities.

The principal features involved are the Angostura Dam and Reservoir with a conservation storage capacity of 160,000 acre-feet plus 60,000 acre-feet of superstorage for flood control; the

Allocation and repayment of cost, Missouri River Basin project, June 30, 1957

Item	Bureau of Reclamation	Corps of Engineers	Fort Peck project and other Interior agencies	Total
Total estimated cost.....	\$3, 403, 866, 810	\$2, 436, 836, 000	\$57, 688, 390	\$5, 898, 391, 200
Allocation of cost:				
Reimbursable:.....	3, 123, 002, 210	793, 201, 000	57, 688, 390	3, 973, 891, 600
Irrigation.....	¹ 2, 555, 795, 200	179, 203, 000	-----	2, 734, 998, 200
Commercial power—plant investment.....	485, 797, 500	563, 409, 000	18, 711, 000	1, 067, 917, 500
Interest during construction.....	20, 844, 010	50, 589, 000	467, 390	71, 900, 400
Municipal:				
Plant investment.....	19, 245, 400	-----	-----	19, 245, 400
Interest during construction.....	713, 000	-----	-----	713, 000
Recreation.....	2, 588, 300	-----	-----	2, 588, 300
Investigations.....	38, 018, 800	-----	38, 510, 000	76, 528, 800
Nonreimbursable.....	237, 954, 300	1, 643, 600, 000	-----	1, 881, 554, 300
Flood control and navigation.....	186, 634, 800	1, 640, 228, 000	-----	1, 826, 862, 800
Fish and wildlife.....	49, 188, 700	10, 000	-----	49, 198, 700
Recreation.....	1, 130, 800	3, 362, 000	-----	4, 492, 800
Municipal water.....	1, 000, 000	-----	-----	1, 000, 000
Reserves:.....	42, 910, 300	35, 000	-----	42, 945, 300
Reserve for future power system additions:				
Plant investment.....	41, 863, 700	35, 000	-----	41, 898, 700
Interest during construction.....	1, 046, 600	-----	-----	1, 046, 600
Repayment of reimbursable cost.....	3, 123, 002, 210	793, 201, 000	57, 688, 390	3, 973, 891, 600
From power revenues.....	2, 687, 477, 610	793, 201, 000	57, 688, 390	3, 538, 367, 000
For electric plant investment.....	506, 641, 510	613, 998, 000	19, 178, 390	1, 139, 817, 900
For irrigation plant investment.....	2, 140, 229, 000	179, 203, 000	-----	2, 319, 432, 000
For recreation plant investment.....	2, 588, 300	-----	-----	2, 588, 300
For investigations.....	38, 018, 800	-----	38, 510, 000	76, 528, 800
From municipal water users.....	19, 958, 400	-----	-----	19, 958, 400
From irrigation water users.....	415, 566, 200	-----	-----	415, 566, 200

¹ Includes \$1,397,000 of Shoshone project costs for Shoshone extensions unit.

Angostura powerplant with 1,200 kilowatts of installed capacity; 30 miles of main canal and 37 miles of laterals to supply irrigation water to 9,535 acres of land on the south side of the Cheyenne River and 2,619 acres on the north side. Construction of the dam was completed in December 1949, the powerplant in December 1951 and the canals in July 1953.

Estimated total cost of the unit is \$14,655,285, which is allocated as follows: Irrigation \$12,632,206, power \$704,537, recreation \$180,000, flood control (nonreimbursable) \$538,852, and fish and wildlife (nonreimbursable) \$599,690.

Angostura Dam and Reservoir and the powerplant are being operated by the Bureau of Reclamation with appropriated funds. Revenue obtained through sale of power is covered into the Reclamation fund for operation and maintenance and retirement of project costs. Irrigation facil-

ities currently are being operated by the Bureau of Reclamation with appropriated funds which are reimbursed by the irrigation district. It is anticipated that the irrigation district will take over full responsibility for operation and maintenance of all irrigation facilities on or before the end of the 10-year development period which began in 1956.

Repayment and water-service contracts.—The contract with the Angostura irrigation district is a combined water-service and repayment type. The contract was signed May 29, 1951, and became effective at the beginning of the development period January 1, 1956. Repayment of distribution system construction costs begins after the 10-year development period. The repayment part of the contract obligates the district for \$718,000, to be paid in 40 equal annual installments of \$17,950. The water-service part of the

Payout study—Missouri River Basin project

[Based upon 3 percent interest for power]

Year of study	Fiscal year	Power						
		Net operating revenue	Repayment component of net power revenue		Investment repayment from power revenues			
					Interest bearing		Interest-free	
			Interest 3 percent	Excess over interest	Electric plant	Balance to be repaid	Irrigation plant	Balance to be repaid
	Totals through							
1950		\$1,908,476	\$630,866	\$1,277,610	\$6,743,905	\$5,466,295		
1951		647,019	163,989	483,030	15,629,795	13,869,155		
1952		1,133,499	416,075	717,424	30,870,093	28,392,029		
1953		1,567,973	851,761	716,212	54,548,806	51,354,530		
1954		831,947	1,540,636	-708,689	113,511,165	111,025,578		
1955		2,780,833	3,330,767	-549,934	201,969,586	200,033,933		
	Totals through 1955	8,869,747	6,934,094	1,935,653	201,969,586	200,033,933		
1956		10,983,605	6,001,018	4,982,587	361,411,100	354,492,860	\$90,352,800	\$90,352,800
1957		13,211,725	10,634,786	2,576,939	402,405,000	392,909,821	100,601,300	100,601,300
1958		12,869,582	11,787,295	1,082,287	412,240,800	401,663,334	103,060,200	103,060,200
1959		13,653,248	12,049,900	1,603,348	502,576,600	490,395,786	125,644,100	125,644,100
1960		19,665,008	14,711,874	4,953,134	543,561,300	526,427,352	135,890,300	135,890,300
1961		24,906,928	15,792,821	9,114,107	625,125,400	598,877,345	156,281,300	156,281,300
1962		33,380,050	17,966,320	15,413,730	746,336,800	704,675,015	186,584,200	186,584,200
1963		32,490,640	21,140,250	11,350,390	949,198,100	896,185,925	226,338,500	226,338,500
1964		40,798,370	26,885,578	13,912,792	1,022,994,300	956,069,333	243,972,300	243,972,300
1965		42,434,030	28,682,079	13,751,951	1,052,717,700	972,040,782	251,015,000	251,015,000
1966		41,895,310	29,161,223	12,734,087	1,053,407,700	959,996,695	251,187,400	251,187,400
1967		41,780,360	28,799,901	12,980,459	1,053,449,400	947,057,936	251,197,800	251,197,800
1968		41,622,300	28,411,738	13,210,562	1,064,635,600	945,033,574	253,864,900	253,864,900
1969		42,284,280	28,351,007	13,933,273	1,107,559,900	974,024,601	264,091,000	264,091,000
1970		42,846,690	29,220,738	13,625,952	1,119,664,800	972,503,549	266,975,200	266,975,200
1971		42,870,520	29,175,106	13,695,414	1,119,664,800	958,808,135	266,975,200	266,975,200
1972		42,810,820	28,764,244	14,046,576	1,119,664,800	944,761,559	266,975,200	266,975,200
1973		42,750,570	28,342,847	14,407,723	1,119,664,800	930,353,836	266,975,200	266,975,200
1974		42,690,320	27,910,615	14,779,705	1,119,664,800	915,574,131	266,975,200	266,975,200
1975		42,628,710	27,467,224	15,161,486	1,119,664,800	900,412,645	266,975,200	266,975,200
1976		42,577,070	27,012,379	15,564,691	1,119,664,800	884,847,954	266,975,200	266,975,200
1977		42,525,430	26,545,439	15,979,991	1,119,664,800	868,867,963	266,975,200	266,975,200
1978		42,473,790	26,066,039	16,407,751	1,119,664,800	852,460,212	266,975,200	266,975,200
1979		42,422,150	25,573,806	16,848,344	1,119,664,800	835,611,868	266,975,200	266,975,200
1980		42,370,430	25,068,356	17,302,074	1,119,664,800	818,309,794	266,975,200	266,975,200
1981		42,316,980	24,549,294	17,767,686	1,119,664,800	800,542,108	266,975,200	266,975,200
1982		42,263,530	24,016,263	18,247,267	1,119,664,800	782,294,841	266,975,200	266,975,200
1983		42,210,080	23,468,845	18,741,235	1,119,664,800	763,553,606	266,975,200	266,975,200
1984		42,155,430	22,906,608	19,248,822	1,119,664,800	744,304,784	266,975,200	266,975,200
1985		42,101,980	22,329,144	19,772,836	1,119,664,800	724,531,948	266,975,200	266,975,200
1986		42,054,470	21,735,958	20,318,512	1,119,664,800	704,213,436	266,975,200	266,975,200
1987		42,007,290	21,126,403	20,880,887	1,119,664,800	683,332,549	266,975,200	266,975,200
1988		41,959,780	20,499,976	21,459,804	1,119,664,800	661,872,745	266,975,200	266,975,200
1989		41,912,600	19,856,182	22,056,418	1,119,664,800	639,816,327	266,975,200	266,975,200
1990		41,863,730	19,194,490	22,669,240	1,119,664,800	617,147,087	266,975,200	266,975,200
1991		41,816,360	18,514,413	23,301,947	1,119,664,800	593,845,140	266,975,200	266,975,200
1992		41,767,790	17,815,354	23,952,436	1,119,664,800	569,892,704	266,975,200	266,975,200
1993		41,719,220	17,096,781	24,622,439	1,119,664,800	545,270,265	266,975,200	266,975,200
1994		41,669,450	16,358,108	25,311,342	1,119,664,800	519,958,923	266,975,200	266,975,200
1995		41,620,880	15,598,768	26,022,112	1,119,664,800	493,936,811	266,975,200	266,975,200
1996		41,566,370	14,818,104	26,748,266	1,119,664,800	467,188,545	266,975,200	266,975,200
1997		41,511,530	14,015,656	27,495,874	1,119,664,800	439,692,671	266,975,200	266,975,200
1998		41,457,020	13,190,780	28,266,240	1,119,664,800	411,426,431	266,975,200	266,975,200
1999		41,402,180	12,342,793	29,059,387	1,119,664,800	382,367,044	266,975,200	266,975,200
2000		41,347,430	11,471,011	29,876,419	1,119,664,800	352,490,625	266,975,200	266,975,200
2001		40,733,570	10,574,719	30,158,851	1,119,664,800	322,331,774	266,975,200	266,975,200
2002		40,119,710	9,669,953	30,449,757	1,119,664,800	291,882,017	266,975,200	266,975,200
2003		39,509,150	8,756,461	30,752,689	1,119,664,800	261,129,328	266,975,200	266,975,200
2004		38,876,480	7,833,880	31,042,600	1,119,664,800	230,086,728	266,975,200	266,975,200
2005		38,382,530	6,902,602	31,479,928	1,119,664,800	198,606,800	266,975,200	266,975,200
2006		37,802,630	5,958,204	31,844,426	1,119,664,800	166,762,374	266,975,200	266,975,200
2007		37,206,560	5,002,871	32,203,689	1,119,664,800	134,558,685	266,975,200	266,975,200
2008		36,610,160	4,036,761	32,573,399	1,119,664,800	101,985,286	266,975,200	266,975,200
2009		36,014,090	3,059,559	32,954,531	1,119,664,800	69,030,755	266,975,200	266,975,200
2010		35,414,050	2,070,923	33,343,127	1,119,664,800	35,687,628	266,975,200	266,975,200
2011		35,414,050	1,070,629	34,343,421	1,119,664,800	1,344,207	266,975,200	266,975,200
2012		35,414,050	40,326	1,344,207	1,119,664,800	0	266,975,200	232,945,683
2013		35,414,050	0	0	1,119,664,800	0	266,975,200	197,531,633
2014		35,414,050	0	0	1,119,664,800	0	266,975,200	162,117,583
2015		35,414,050	0	0	1,119,664,800	0	266,975,200	126,703,533
2016		35,414,050	0	0	1,119,664,800	0	266,975,200	91,289,483
2017		35,414,050	0	0	1,119,664,800	0	266,975,200	55,875,433
2018		35,414,050	0	0	1,119,664,800	0	266,975,200	20,461,383
2019		35,414,050	0	0	1,119,664,800	0	266,975,200	0
2020		35,414,050	0	0	1,119,664,800	0	266,975,200	0
2021		35,414,050	0	0	1,119,664,800	0	266,975,200	0
2022		35,414,050	0	0	1,119,664,800	0	266,975,200	0
2023		35,414,050	0	0	1,119,664,800	0	266,975,200	0
2024		35,414,050	0	0	1,119,664,800	0	266,975,200	0
2025		35,414,050	0	0	1,119,664,800	0	266,975,200	0

Payout study—Missouri River Basin project—Continued

[Based upon 3 percent interest for power]

Year of study	Fiscal year	Net operating revenue	Power					
			Repayment component of net power revenue		Investment repayment from power revenues			
					Interest bearing		Interest-free	
			Interest 3 percent	Excess over interest	Electric plant	Balance to be repaid	Irrigation plant	Balance to be repaid
76	2026	\$35,414,050	0	0	\$1,119,664,800	0	\$266,975,200	0
77	2027	35,414,050	0	0	1,119,664,800	0	266,975,200	0
78	2028	35,414,050	0	0	1,119,664,800	0	266,975,200	0
79	2029	35,414,050	0	0	1,119,664,800	0	266,975,200	0
80	2030	35,414,050	0	0	1,119,664,800	0	266,975,200	0
81	2031	35,414,050	0	0	1,119,664,800	0	266,975,200	0
82	2032	35,414,050	0	0	1,119,664,800	0	266,975,200	0
83	2033	35,414,050	0	0	1,119,664,800	0	266,975,200	0
84	2034	35,414,050	0	0	1,119,664,800	0	266,975,200	0
85	2035	35,414,050	0	0	1,119,664,800	0	266,975,200	0
86	2036	35,414,050	0	0	1,119,664,800	0	266,975,200	0
87	2037	35,414,050	0	0	1,119,664,800	0	266,975,200	0
88	2038	35,414,050	0	0	1,119,664,800	0	266,975,200	0
89	2039	35,414,050	0	0	1,119,664,800	0	266,975,200	0
90	2040	35,414,050	0	0	1,119,664,800	0	266,975,200	0
91	2041	35,414,050	0	0	1,119,664,800	0	266,975,200	0
92	2042	35,414,050	0	0	1,119,664,800	0	266,975,200	0
93	2043	35,414,050	0	0	1,119,664,800	0	266,975,200	0
94	2044	35,414,050	0	0	1,119,664,800	0	266,975,200	0
95	2045	35,414,050	0	0	1,119,664,800	0	266,975,200	0
96	2046	35,414,050	0	0	1,119,664,800	0	266,975,200	0
97	2047	35,414,050	0	0	1,119,664,800	0	266,975,200	0
98	2048	35,414,050	0	0	1,119,664,800	0	266,975,200	0
99	2049	35,414,050	0	0	1,119,664,800	0	266,975,200	0
100	2050	35,414,050	0	0	1,119,664,800	0	266,975,200	0
100-year totals		3,523,766,713	\$1,024,338,496	\$1,119,664,800	1,119,664,800	0	266,975,200	0
120-year totals		4,232,047,713	1,024,338,496	1,119,664,800	1,119,664,800	0	266,975,200	0

Year of study	Fiscal year	Irrigation			Municipal water					Recapitulation	
		Net revenue from irrigation water users	Investment repayment		Net revenues from municipal purposes	Investment component of net municipal water revenues		Investment re- payment			
			Irrigation plant in service at end of year	Interest-free balance to be repaid		Interest 2½ percent	Principal	Municipal water plant	Balance to be repaid	Net revenues	Earned surplus (cumulative)
	Totals through 1950										
1	1951									\$1,908,476	0
2	1952									647,019	0
3	1953									1,133,499	0
4	1954									1,567,973	0
5	1955									831,947	0
										2,780,833	0
	Totals through 1955										
			\$196,539,000	\$196,539,000	\$136,635	\$94,817	\$41,818	\$775,000	\$733,182	9,006,382	0
6	1956		221,735,000	221,735,000	27,327	18,330	8,997	775,000	724,185	11,010,932	0
7	1957	0	242,103,000	242,103,000	27,327	18,105	9,222	1,870,000	1,809,963	13,239,052	0
8	1958	\$102,500	277,878,000	277,775,500	65,937	45,249	20,688	1,870,000	1,789,275	13,038,019	0
9	1959	157,700	323,159,000	322,898,800	65,937	44,732	21,205	3,618,000	3,516,070	13,876,885	0
10	1960	233,300	370,718,000	370,224,500	127,571	87,902	39,669	3,618,000	3,476,401	20,025,879	0
11	1961	308,400	480,174,000	479,372,100	127,571	86,910	40,661	3,846,000	3,663,740	25,342,899	0
12	1962	471,300	533,168,000	531,894,800	135,635	91,594	44,041	4,074,000	3,847,699	33,986,985	0
13	1963	654,000	584,273,000	582,345,800	143,699	96,192	47,507	4,302,000	4,028,192	33,288,339	0
14	1964	813,000	649,050,000	646,309,800	151,763	100,705	51,058	4,530,000	4,205,134	41,763,133	0
15	1965	849,900	725,991,000	722,400,900	159,827	105,128	54,699	4,913,000	4,533,435	43,443,757	0
16	1966	875,000	809,288,000	804,822,900	173,357	113,336	60,021	5,296,000	4,856,414	42,943,667	0
17	1967	959,300	894,178,000	888,753,600	186,886	121,410	65,476	5,679,000	5,173,938	42,926,546	0
18	1968	996,000	981,952,000	975,531,600	200,146	129,348	70,798	6,062,000	5,486,140	42,818,446	0
19	1969	1,029,400	1,069,852,000	1,062,402,200	213,945	137,154	76,791	6,689,000	6,036,349	43,527,625	0
20	1970	1,160,800	1,158,988,000	1,150,377,400	236,077	150,909	85,168	7,079,000	6,341,181	44,243,567	0
21	1971	1,395,400	1,247,962,000	1,237,956,000	249,607	158,530	91,077	7,234,000	6,405,104	44,515,527	0
22	1972	1,547,300	1,337,567,000	1,326,013,700	255,072	160,128	94,944	7,389,000	6,465,160	44,613,192	0
23	1973	1,769,500	1,425,158,000	1,411,835,200	260,537	161,629	98,908	7,544,000	6,521,252	44,780,607	0
24	1974	2,073,200	1,512,758,000	1,497,362,000	266,002	163,031	102,971	7,701,000	6,575,281	45,029,522	0
25	1975	2,262,600	1,595,241,000	1,577,582,400	271,537	164,382	107,155	7,701,000	6,468,126	45,162,847	0
26	1976	2,753,100	1,660,047,000	1,639,635,300	271,537	161,703	109,834	7,701,000	6,358,292	45,601,707	0
27	1977	3,339,500	1,694,224,000	1,670,472,800	271,537	158,957	112,580	7,701,000	6,245,712	46,136,467	0
28	1978	4,095,000	1,714,301,000	1,686,454,800	271,537	156,143	115,394	7,701,000	6,130,318	46,840,327	0
29	1979	4,318,300	1,734,379,000	1,702,214,500	271,537	153,258	118,279	7,701,000	6,012,039	47,011,987	0

Payout study—Missouri River Basin project—Continued

[Based upon 3 percent interest for power]

Year of study	Fiscal year	Irrigation			Municipal water				Recapitulation		
		Net revenue from irrigation water users	Investment repayment		Net revenues from municipal purposes	Investment component of net municipal water revenues		Investment repayment		Net revenues	Earned surplus (cumulative)
			Irrigation plant in service at end of year	Interest-free balance to be repaid		Interest 2½ percent	Principal	Municipal water plant	Balance to be repaid		
30	1980	\$4,743,800	\$1,754,456,000	\$1,717,547,700	\$271,537	\$150,301	\$121,236	\$7,701,000	\$5,890,803	\$47,385,767	0
31	1981	5,089,600	1,774,534,000	1,732,536,100	271,537	147,270	124,267	7,701,000	5,766,536	47,678,117	0
32	1982	5,473,100	1,794,611,000	1,747,140,000	271,537	144,163	127,374	7,701,000	5,639,162	48,008,167	0
33	1983	5,734,500	1,814,689,000	1,761,483,500	271,537	140,979	130,558	7,701,000	5,508,604	48,216,117	0
34	1984	6,110,000	1,834,766,000	1,775,450,500	271,537	137,715	133,822	7,701,000	5,374,782	48,536,967	0
35	1985	6,486,200	1,854,844,000	1,789,042,300	271,537	134,370	137,167	7,701,000	5,237,615	48,859,717	0
36	1986	6,812,100	1,874,921,000	1,802,307,200	271,537	130,940	140,597	7,701,000	5,097,018	49,138,107	0
37	1987	7,003,200	1,894,999,000	1,815,382,000	271,537	127,425	144,112	7,701,000	4,952,906	49,282,027	0
38	1988	7,107,400	1,915,076,000	1,828,351,600	271,537	123,823	147,714	7,701,000	4,805,192	49,338,717	0
39	1989	7,211,800	1,935,154,000	1,841,217,800	271,537	120,130	151,407	7,701,000	4,653,785	49,395,937	0
40	1990	7,316,200	1,955,231,000	1,853,978,600	271,537	116,345	155,192	7,701,000	4,498,593	49,451,467	0
41	1991	7,420,400	1,975,309,000	1,866,636,200	271,537	112,465	159,072	7,701,000	4,339,521	49,508,297	0
42	1992	7,524,800	1,995,386,000	1,879,188,400	271,537	108,488	163,049	7,701,000	4,176,472	49,564,127	0
43	1993	7,629,100	2,015,464,000	1,891,637,300	271,537	104,412	167,125	7,701,000	4,009,347	49,619,857	0
44	1994	7,733,400	2,035,541,000	1,903,980,900	271,537	100,234	171,303	7,701,000	3,838,044	49,674,387	0
45	1995	7,837,700	2,055,619,000	1,916,221,200	271,537	95,951	175,586	7,701,000	3,662,458	49,730,117	0
46	1996	7,942,100	2,071,309,000	1,923,969,100	271,537	91,561	179,976	7,701,000	3,482,482	49,780,007	0
47	1997	8,046,400	2,082,611,000	1,927,224,700	271,537	87,062	184,475	7,701,000	3,298,007	49,829,467	0
48	1998	8,048,200	2,091,608,000	1,928,173,500	271,537	82,450	189,087	7,701,000	3,108,920	49,776,757	0
49	1999	8,097,400	2,100,621,000	1,929,089,100	271,537	77,723	193,814	7,701,000	2,915,106	49,771,117	0
50	2000	8,126,000	2,180,164,000	1,992,506,100	271,537	72,878	198,659	7,701,000	2,716,447	49,744,967	0
51	2001	8,155,300	2,180,164,000	1,992,350,800	244,210	67,911	176,299	7,701,000	2,540,148	49,133,080	0
52	2002	8,096,800	2,180,164,000	1,984,254,000	244,210	63,504	180,706	7,701,000	2,359,442	48,460,720	0
53	2003	8,018,300	2,180,164,000	1,976,235,700	244,210	58,986	185,224	7,701,000	2,174,218	47,771,660	0
54	2004	7,963,700	2,180,164,000	1,968,272,000	244,210	54,355	189,855	7,701,000	1,984,363	47,084,390	0
55	2005	8,031,100	2,180,164,000	1,960,240,900	244,210	49,609	194,601	7,701,000	1,789,762	46,657,840	0
56	2006	8,087,600	2,180,164,000	1,952,153,300	244,210	44,744	199,466	7,701,000	1,590,296	46,134,440	0
57	2007	8,062,400	2,180,164,000	1,944,090,900	244,210	39,757	204,453	7,701,000	1,385,843	45,513,170	0
58	2008	8,072,500	2,180,164,000	1,936,018,400	205,600	34,646	170,954	7,701,000	1,214,889	44,888,260	0
59	2009	8,086,100	2,180,164,000	1,927,932,300	205,600	30,372	175,228	7,701,000	1,039,661	44,305,790	0
60	2010	7,966,800	2,180,164,000	1,919,965,500	143,966	25,992	117,974	7,701,000	921,687	43,524,816	0
61	2011	7,732,200	2,180,164,000	1,912,233,300	143,966	23,402	120,924	7,701,000	800,763	43,290,216	0
62	2012	7,580,300	2,180,164,000	1,904,653,000	135,902	20,019	115,883	7,701,000	684,880	43,130,252	0
63	2013	7,358,100	2,180,164,000	1,897,294,900	127,838	17,122	110,716	7,701,000	574,164	42,899,988	0
64	2014	7,054,400	2,180,164,000	1,890,240,500	119,774	14,354	105,420	7,701,000	468,744	42,588,224	0
65	2015	6,865,000	2,180,164,000	1,883,375,500	111,710	11,719	99,991	7,701,000	368,753	42,390,760	0
66	2016	6,374,500	2,180,164,000	1,877,001,000	98,180	9,219	88,961	7,701,000	279,792	41,886,730	0
67	2017	5,788,100	2,180,164,000	1,871,212,900	84,651	6,995	77,656	7,701,000	202,136	41,286,801	0
68	2018	5,032,600	2,180,164,000	1,866,180,300	71,121	5,053	66,068	7,701,000	136,068	40,517,771	0
69	2019	4,809,300	2,180,164,000	1,846,418,333	57,592	3,402	54,190	7,701,000	81,878	40,280,942	0
70	2020	4,383,800	2,180,164,000	1,846,620,483	35,460	2,047	33,413	7,701,000	48,465	39,833,310	0
71	2021	4,038,000	2,180,164,000	1,767,168,433	21,930	1,212	20,718	7,701,000	27,747	39,473,980	0
72	2022	3,654,500	2,180,164,000	1,728,099,883	16,465	694	15,771	7,701,000	11,976	39,085,015	0
73	2023	3,393,100	2,180,164,000	1,689,292,733	11,000	299	10,701	7,701,000	1,275	38,818,150	0
74	2024	3,017,600	2,180,164,000	1,650,861,083	1,307	32	1,275	7,701,000	0	38,432,957	0
75	2025	2,641,400	2,180,164,000	1,612,805,633	0	0	0	7,701,000	0	38,055,450	0
76	2026	2,315,500	2,180,164,000	1,575,076,083	0	0	0	7,701,000	0	37,729,550	0
77	2027	2,124,400	2,180,164,000	1,537,537,633	0	0	0	7,701,000	0	37,538,450	0
78	2028	2,020,200	2,180,164,000	1,500,103,383	0	0	0	7,701,000	0	37,434,250	0
79	2029	1,915,800	2,180,164,000	1,462,773,533	0	0	0	7,701,000	0	37,329,850	0
80	2030	1,811,400	2,180,164,000	1,425,548,083	0	0	0	7,701,000	0	37,225,450	0
81	2031	1,707,200	2,180,164,000	1,388,426,833	0	0	0	7,701,000	0	37,121,250	0
82	2032	1,602,800	2,180,164,000	1,351,409,983	0	0	0	7,701,000	0	37,016,850	0
83	2033	1,498,500	2,180,164,000	1,314,497,433	0	0	0	7,701,000	0	36,912,550	0
84	2034	1,394,200	2,180,164,000	1,277,689,183	0	0	0	7,701,000	0	36,808,250	0
85	2035	1,289,900	2,180,164,000	1,240,985,233	0	0	0	7,701,000	0	36,703,950	0
86	2036	1,185,500	2,180,164,000	1,204,385,683	0	0	0	7,701,000	0	36,599,550	0
87	2037	1,081,200	2,180,164,000	1,167,890,433	0	0	0	7,701,000	0	36,495,250	0
88	2038	976,900	2,180,164,000	1,131,499,483	0	0	0	7,701,000	0	36,390,950	0
89	2039	872,500	2,180,164,000	1,095,212,933	0	0	0	7,701,000	0	36,286,550	0
90	2040	768,300	2,180,164,000	1,059,030,583	0	0	0	7,701,000	0	36,182,350	0
91	2041	663,900	2,180,164,000	1,022,952,633	0	0	0	7,701,000	0	36,077,950	0
92	2042	559,500	2,180,164,000	986,979,083	0	0	0	7,701,000	0	35,973,550	0
93	2043	455,300	2,180,164,000	951,109,733	0	0	0	7,701,000	0	35,869,350	0
94	2044	350,900	2,180,164,000	915,344,783	0	0	0	7,701,000	0	35,764,950	0
95	2045	246,600	2,180,164,000	879,684,133	0	0	0	7,701,000	0	35,660,650	0
96	2046	165,000	2,180,164,000	844,105,083	0	0	0	7,701,000	0	35,579,050	0
97	2047	105,900	2,180,164,000	808,585,133	0	0	0	7,701,000	0	35,519,950	0
98	2048	59,100	2,180,164,000	773,111,983	0	0	0	7,701,000	0	35,473,150	0
99	2049	12,100	2,180,164,000	737,685,833	0	0	0	7,701,000	0	35,426,150	0
100	2050	0	2,180,164,000	702,271,783	0	0	0	7,701,000	0	35,414,050	0
100-year totals		365,104,000	2,180,164,000	702,271,783	13,572,352	5,871,352	7,701,000	7,701,000	0	3,902,443,065	0
120-year totals		365,104,000	2,180,164,000	702,271,783	13,572,352	5,871,352	7,701,000	7,701,000	0	4,610,724,065	\$6,009,217

¹ Includes \$59,855,000 for investigations of inactive units and for investigations by other Interior agencies; \$195,000 for reimbursable fish and wildlife costs; and \$11,069,000 for reimbursable recreation costs.

² Surplus power revenues applied from 70th year. Total \$1,815,060,000.

contract obligates the district to pay \$23,550 annually for 30 years. The estimated annual construction component of \$7,850 in the water-service portion of the contract amounts to \$314,000 in 40 years. Under the water-service part of the contract, the district may elect to pay annual installments according to a variable formula reflecting changing economic conditions. First delivery of water under this contract was in 1956.

CONTRACTS

- 1951, May 29: Water service and repayment contract between Angostura irrigation district and the United States for 40 years plus 10-year development period. No payments have been made as of June 30, 1956.
- 1952, June 16: Interim contract with Angostura irrigation district providing for furnishing some, but not all, of the lands with irrigation water at the rate of \$1 per acre-foot. No water was delivered under this contract.
- 1953, May 7: Interim contract with Angostura irrigation district providing for furnishing some, but not all, of the lands with irrigation water at the rate of \$1 per acre-foot. Payments made under this contract totaled \$3,221.67, which have been credited to the incidental cost of furnishing such water during the construction period.
- 1954, March 31: Interim contract with the Angostura irrigation district providing for furnishing some, but not all, of the lands with irrigation water at the rate of \$1 per acre-foot. Payments made under this contract totaled \$14,651.34, which have been credited to the incidental cost of furnishing such water during the construction period.
- 1955, May 16: Interim contract with the Angostura irrigation district providing for furnishing some, but not all, of the lands with irrigation water at the rate of \$1 per acre-foot. Payments made under this contract totaled \$14,035.06, which have been credited to the incidental cost of furnishing such water during the construction period.

WATER SERVICE CONTRACT (Combined with repayment contract)

District..... Angostura irrigation district.
 Date of contract..... May 29, 1951. Effective 1956.
 Date of initial water delivery under this contract..... 1956.
 Type of contract..... Repayment and water service.
 Contract period..... 40 years.

Rates..... Repayment portion of contract: \$17,950 annually for 40 years beginning in 1966. Water service portion of contract: During first 10 years beginning in 1956 an amount equal to the annual operation and maintenance cost of the district water supply works operated by the United States; for the succeeding 30 years it is to be \$23,550 annually, of which \$7,850 is the estimated construction component.

The summary of status of repayment portion of contract:

Total value of contracted repayment.....	\$718, 000
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1956.....	\$15, 500	\$15, 500
1957.....	18, 990	18, 990
Total.....	34, 490	34, 490

BOSTWICK DIVISION, NEBRASKA-KANSAS

The Bostwick division is located about midway east and west along the Nebraska-Kansas State line. About 72 percent of the irrigable area lies south of the line in Kansas.

Harlan County Dam and Reservoir, a multipurpose facility on the Republican River in Nebraska, was completed in 1952 by the Corps of Engineers under the Flood Control Acts of 1941 and 1944. It provides the principal source of storage water for irrigation in the division. Lovewell Dam and Reservoir on White Rock Creek in Kansas is nearing completion by the Bureau. It will provide irrigation storage, irrigation regulation, and flood control.

The irrigation facilities in Nebraska have been completed to the extent that water can be delivered to essentially all of the irrigable lands in the Bost-

wick irrigation district which serves the Nebraska portion of the division. The principal facilities completed include the Superior Courtland Diversion Dam, Superior Canal and laterals, Courtland Canal and laterals in Nebraska, Franklin Canal and laterals, Franklin South Side Canal and laterals, Naponee Canal and laterals, and a portion of the drainage works to serve 24,240 irrigable acres in Nebraska.

The irrigation facilities in Kansas have been completed to the extent that water can be delivered to essentially all of the irrigable lands in block I of the Kansas-Bostwick irrigation district No. 2; i. e., that portion of the lands within the existing district boundaries north of White Rock Creek. The principal facilities completed include the Courtland Canal and laterals to Lovewell Reservoir, the North Canal and laterals, the Ridge Canal and laterals, and a portion of the drainage works to serve about 10,000 acres in block I. Construction is underway on irrigation works in the remainder of the district, which will ultimately contain an irrigable area of 49,000 acres. Facilities not yet completed include the Courtland Canal and laterals south of Lovewell Reservoir, Courtland West Canal and laterals, White Rock Canal and laterals, White Rock Extension Canal and laterals, Miller Canal and laterals, four pump canals and laterals, and certain drainage works.

Construction of the Scandia diversion dam, Scandia Canal and laterals, and the drainage works to serve 13,000 irrigable acres in the Scandia unit has been deferred pending organization of the water users and completion of repayment contract negotiations.

The current estimated project cost of the division is \$48,591,209 (exclusive of the Corps of Engineer's cost for Harlan County Dam and Reservoir), of which \$2,396,209 is tentatively allocated to flood control, and \$24,000 to fish and wildlife and are nonreimbursable. The remaining \$46,171,000 is reimbursable and consists of irrigation costs of \$46,134,000 and \$37,000 of specific costs for recreation.

In addition, the December 1955 cost for Harlan County Dam and Reservoir was \$45,232,000, of which \$33,927,000 was allocated to flood control

and is nonreimbursable and \$11,249,000 is allocable to irrigation and is reimbursable. It is anticipated that of the total irrigation costs, the water users will repay \$14,623,000, and basin power revenues will repay the balance of \$42,760,000.

Water-service and repayment contracts.—Contracts have been executed with two irrigation districts in compliance with the 1939 Reclamation Act. These contracts have been amended and are now considered adequate.

Bostwick irrigation district (Nebraska).—The contract of February 21, 1949, as amended November 10, 1954, provides for a construction charge obligation of \$3,105,000 to cover the cost of distribution works and that portion of the drainage works required immediately. This obligation is payable in 40 equal annual installments following a 5-year development period. The district agreed to construct future drainage works as required to the extent of an expenditure of \$900,000. Water-service charges under this contract provide for a construction component to be applied on the cost of the water supply works. It is estimated that this component will produce an average of \$14,000 annually or a total of \$490,000 in the 35 years following the development period.

Kansas-Bostwick irrigation district No. 2.—The contract of April 20, 1951, as amended April 24, 1957, provides for water-service charges and for a construction charge obligation of \$5,781,000 to cover the cost of the distribution works and that portion of the drainage works required immediately. The obligation is payable in 40 equal annual installments, by irrigation blocks, following a 5-year development period. Water-service charges under this contract will include a construction component to be applied on the cost of the water supply works. It is estimated that this construction component will produce an average of \$23,000 annually or a total of \$805,000 in the 35 years following the development period. In addition, the district has agreed to construct facilities to serve tracts containing less than 40 irrigable acres, estimated to cost \$539,000, and future drainage works as required at an estimated cost of \$1,961,000.

Water-service contracts

Organization	Date of contract	Date of initial payment	Type of contract	Contract period (years)	Repayment and water-service rates
Bostwick irrigation district (Nebraska).	Feb. 21, 1949, amended Nov. 10, 1954.	1962-----	Combination water-service and repayment.	40-----	Water service: First 5 years, equivalent to irrigation operation and maintenance costs incurred by United States. Next 35 years, \$6,700 considered as equivalent to irrigation, operation and maintenance costs incurred by United States, plus additional water charges at the rate of \$1 per acre-foot estimated to return \$14,000 annually. Construction repayment: After 5-year development period, \$77,625 annually for 40 years.
Kansas-Bostwick irrigation district No. 2.	Apr. 20, 1951, amended Apr. 24, 1957.	1962-----	-----do-----	40 for each block.	Water service: First five years, equivalent to irrigation operation and maintenance costs incurred by United States. Next 35 years, equivalent to irrigation operation and maintenance costs incurred by United States, plus additional water charges at the rate of \$1 per acre-foot estimated to return \$23,000 annually. The total annual installment of \$144,525 is to be apportioned among the irrigation blocks and the district will pay the sum of the apportioned amount following a 5-year development period for each block. Payments on behalf of each block to cover a 40-year period.
Block I-----	-----	1962-----	-----	-----	
Block II-----	-----	1964-----	-----	-----	
Block III-----	-----	Indefinite	-----	-----	

The summary of status of repayment contracts:

Total value of construction charge obligations.	\$8, 886, 000
Total matured charges-----	0
Total matured charges repaid-----	0
Total matured charges unpaid-----	0

BOYSEN UNIT—BOYSEN DIVISION,
WYOMING

Boysen Dam was authorized by the Flood Control Act of 1944 (58 Stat. 887). Boysen unit also includes a 15,000-kilowatt powerplant. It is designed to regulate the flow of the Bighorn River to furnish irrigation water for the Bighorn Basin division and, by replacement, for land above the reservoir; to produce both firm and secondary electric energy; to give flood control; to provide fish and wildlife and recreational values; and to desilt the water which is turbid the year round.

Boysen unit was one of the first units of the Missouri River Basin project to be selected for construction. Initial work on the unit was begun in July 1946 and construction of Boysen Dam was

started in September 1947. The dam was completed and closure was made in October 1951. The powerplant was completed in 1952; one generating unit was placed in operation in August of that year, and the second, in December of that year. Of the total estimated cost of \$34,216,000, the cost to June 30, 1957, was \$33,410,010.

Tentative allocation of the total estimated unit cost is as follows:

Reimbursable:

Irrigation-----	\$19, 205, 000
Power-----	8, 130, 000
Recreation-----	163, 000
Subtotal, reimbursable-----	27, 498, 000

Nonreimbursable:

Fish and wildlife-----	2, 288, 000
Flood control-----	4, 430, 000
Subtotal, nonreimbursable-----	6, 718, 000
Total-----	34, 216, 000

Repayment of reimbursable costs is anticipated to be made by the following revenues:

Power.....	\$8, 130, 000
Repaid by surplus basinwide power revenues..	19, 368, 000
Total.....	27, 498, 000

The unit is operated by the Bureau of Reclamation with appropriated funds. Revenues from the sale of power are covered into the Reclamation fund for retirement of project costs.

CANYON FERRY UNIT—HELENA-GREAT FALLS DIVISION, MONTANA

The Canyon Ferry unit, located on the mainstem of the Missouri River about 50 miles downstream from Three Forks, Mont., is a multi-purpose development planned for the control of floods, the generation of electric power, conservation of fish and wildlife, recreational benefits, and the regulation of flow of the upper Missouri River. The unit was authorized under the Flood Control Act of December 22, 1944 (58 Stat. 887). The total estimated cost of the unit is \$29,180,000. Construction of the unit was started in 1949 and was essentially completed in 1954. It is an important structure in the basinwide plan. It will make possible the irrigation development of approximately 310,000 acres of new land in other units, and provide supplemental water for approximately 196,000 acres by storage of unappropriated waters. The control and regulation of the flow at the dam will maintain adequate flow for senior appropriators of water downstream.

The Canyon Ferry powerplant has an installed generating capacity of 50,000 kilowatts in three 16,667-kilowatt units. Power production began in December 1953. Annual energy output will vary from 320,000,000 kilowatt-hours initially, after marketing contracts stabilize, to approximately 285,000,000 kilowatt-hours ultimately after full development of upstream irrigation. The switchyard at the powerplant, for transformation to 115,000 volts, provides for lines to East Helena, Three Forks, and other future outlets. Presently, 2 parallel 115,000 volt lines extend from the switchyard to East Helena and deliver the entire output of the plant.

The features include the Canyon Ferry Dam, Reservoir and powerplant. The dam is a 225-foot concrete structure with a crest length of 1,000 feet. The reservoir capacity is approximately 2,050,000 acre-feet.

Revenues from the sale of power will be covered into the Reclamation fund to defray operating expenses and for retirement of the construction cost.

CEDAR BLUFF UNIT—SMOKY HILL DIVISION, KANSAS

Cedar Bluff Dam and Reservoir were authorized for construction by the Flood Control Act of 1944 (58 Stat. 887). The dam and reservoir have been completed and are being operated currently for flood protection; construction of the irrigation facilities is being deferred until organization of the water users is completed and a repayment contract negotiated. The development of the Cedar Bluff unit in Trego and Ellis Counties, Kans., will serve the purpose of flood control, irrigation and will provide additional benefits for fish and wildlife and recreation. The completed Cedar Bluff Dam and Reservoir, in conjunction with the downstream Kanopolis Dam and Reservoir, control floods on the Smoky Hill River and provide storage space for irrigation purposes. It is currently estimated that 6,000 acres of land will be irrigated and that 4,000 acre-feet of stored water will be used annually by a fish hatchery to be situated immediately below the dam.

Total project costs, estimated to be \$18,895,682, are tentatively allocated as follows: nonreimbursable \$8,313,382 to flood control and \$16,600 to fish and wildlife; reimbursable \$10,561,300 for irrigation and \$4,400 for the specific costs of recreation.

It is expected that repayment by irrigators will be in the form of a combination water-service and construction repayment contract as provided for in sections 9 (d) and 9 (e) of the Reclamation Project Act of 1939 (53 Stat. 1187). The estimated repayment from water users is \$1,873,000. The balance of reimbursable costs would be retired by Missouri River Basin project power revenues.

CROW CREEK PUMP UNIT—THREE FORKS DIVISION, MONTANA

The Crow Creek pump unit is located in southwestern Montana, Broadwater County, about 47 miles southeast of Helena and 13 miles south of Townsend.

Authorization for the Crow Creek pump unit is to be found in the Flood Control Act of December 22, 1944 (58 Stat. 887), 78th Congress, 2d session (S. Docs. 191 and 247), and the Depart-

ment of the Interior Appropriation Act of 1950 (63 Stat. 765).

The irrigation plan provides for a pumping plant which lifts irrigation water an average of 175 feet from the Missouri River through a 1,175-foot-long discharge concrete pipeline to the Toston Canal, where it flows by gravity through the Toston Tunnel, the Toston and Lombard Canals, and the distribution works.

The general purpose of the Crow Creek pump unit is to replace irrigated land in Broadwater County that was inundated by the Canyon Ferry Reservoir.

The principal features of the unit are the Crow Creek pumping plant, Toston and Lombard Canals, and lateral and drainage systems.

The Crow Creek pump unit was transferred to operation and maintenance status on February 1, 1955, and is operated and maintained by the Bureau of Reclamation with funds advanced by the water users.

A contract dated August 12, 1955, has been entered into with the Toston irrigation district pursuant to the special authorizing act of August 12, 1955 (69 Stat. 697). Under this contract the United States will furnish water to the district on a year-to-year basis for a period not to exceed 10 years. The Toston irrigation district includes only 1,542 acres of the full 5,000 irrigable acres which can be served by the unit works. In view of the small acreage in the district and the consequent limited financial resources of the district, the district is able, and under the contract is required, only to pay the cost of operating and maintaining the unit works exclusive of the cost of electrical energy for pumping. Both the contract and the authorizing act contemplate that the district acreage will increase so that by the end of the 10-year special contract period, the district will be capable of entering into permanent repayment arrangements.

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1956.....	\$4, 482	\$4, 482
1957.....	9, 645	5, 895
Total.....	14, 127	10, 377

Total cost of the Crow Creek pump unit is allocated to irrigation—\$1,670,000, and fish and wildlife—\$45,000.

DICKINSON UNIT—HEART DIVISION, NORTH DAKOTA

Dickinson unit is located in Stark County in southwestern North Dakota. Dickinson Dam and Reservoir are on the Heart River about 1½ miles upstream from the city of Dickinson. It is a multiple-purpose unit which provides storage for irrigation and municipal water, flood control for downstream areas, sedimentation control, fish and wildlife conservation, and recreational opportunities.

The principal feature of the unit is a rolled earthfill dam with combined concrete spillway and outlet works structure and a 16,500 acre-foot reservoir. Construction of the dam was started in March 1949 and substantially completed in August 1950. Subsequent work includes extension of the outlet works into the reservoir, and emergency repair of the spillway damaged by flood in the spring of 1954.

The original plan also called for small pumping plants to serve 915 acres of land in several tracts adjacent to the river. Because of Dickinson's rapidly increasing requirement for municipal water, however, plans have been revised to accommodate approximately 400 acres of irrigation. Development of irrigation is being accomplished by the landowners who are building their own irrigation works and are obtaining water on a temporary rental basis. The irrigators have formed the Dickinson-Heart River Mutual Aid Corp. for the purpose of contracting as a group for a permanent water supply.

The current estimated total cost of the unit is \$1,845,241, of which \$1,476,223 represents the cost of Dickinson Dam and Reservoir. A total of \$12,982 is tentatively allocated to flood control and \$232,237 to fish and wildlife as nonreimbursable. Of the remainder, \$273,389 is allocated tentatively to irrigation, \$1,181,633 to municipal water and \$145,000 to recreation. Currently estimated repayment of the reimbursable cost is as follows:

By municipal water users.....	\$830, 000
By surplus basinwide revenues.....	770, 022
Total.....	1, 600, 022

Whatever amount is paid on construction costs of the unit under the contract being negotiated with the Dickinson-Heart River Mutual Aid Corp. will be deducted from the amount shown

above as being repaid by surplus basinwide revenues.

Dickinson Dam and Reservoir are operated by the Bureau of Reclamation under direct appropriations. Management of the reservoir area is the responsibility of the Dickinson Park Board under a contract with that organization.

Municipal water-service contracts.—The water-service contract with the city of Dickinson provides for delivery of 1,100 acre-feet of water annually for domestic, commercial, industrial, and municipal uses.

CONTRACT

Organization: City of Dickinson, N. Dak.

Date of contract: September 24, 1949.

Type of contract: Water service.

Contract period: 40 years.

Date of initial water delivery: May 1952.

Rates of payment: Semiannual payments are prescribed as indicated below. The 80 payments will yield a return of \$950,000, of which \$120,000 is estimated to be required for operation and maintenance and replacement and \$830,000 is estimated to be available for application to construction costs.

Payments	Each
First 10.....	\$7, 500
Second 10.....	8, 750
Third 10.....	10, 000
Fourth 10.....	11, 250
Fifth 10.....	12, 500
Sixth 10.....	13, 750
Seventh 10.....	15, 000
Eighth 10.....	16, 250

The status of the Dickinson municipal water service contract as of June 30, 1956, is as follows:

Total amount of contract.....	\$950, 000
Total matured charges.....	75, 000
Total charges paid (construction and operation and maintenance).....	75, 000

Annual operation and maintenance.—The annual income and expense by fiscal years under water-service contracts for irrigation and municipal water are as follows:

Fiscal year	Irrigation		Municipal water	
	Income	Expense	Income	Expense
1952.....	\$250. 00	-----	\$15, 000	\$1, 354. 56
1953.....	749. 50	\$235. 51	15, 000	764. 45
1954.....	-----	219. 80	15, 000	941. 60
1955.....	118. 00	202. 24	15, 000	958. 09
1956.....	951. 50	509. 35	15, 000	2, 696. 03
1957.....	400. 00	768. 86	16, 250	3, 504. 06
Total...	2, 469. 00	1, 935. 76	91, 250	10, 218. 79

FORT CLARK UNIT—NORTH DAKOTA PUMPING DIVISION, NORTH DAKOTA

Fort Clark unit is located in Oliver and Mercer Counties in west-central North Dakota near the town of Stanton and about 45 miles northwest of Mandan. The purpose of the unit is to provide a full water supply for the irrigation of 2,039 acres of new land lying on two benches along the Missouri River. Facilities of the unit consist of a river pumping plant, two relift plants and a system of canals, laterals and drains. Construction of these facilities, except deferred drains, was substantially completed in August 1953.

The estimated cost of the unit is \$777,284, of which \$776,507 is allocated to irrigation and \$777 to fish and wildlife. Sixty-six thousand dollars of the amount allocated to irrigation is to be repaid by the irrigation district and the remainder by surplus basinwide power revenues.

Facilities of the unit will be operated by the Bureau of Reclamation until such time as the operation and maintenance of them can be turned over to the Fort Clark irrigation district. Prior to the beginning of the development period, water has been made available to the landowners on an interim basis, 1956 being the first year of the 10-year development period.

Repayment and water-service contract.—A combination repayment and water-service contract with the Fort Clark irrigation district provides for repayment of \$66,000 of distribution facilities construction cost in the 40 years following the 10-year development period. The water-service part of the contract requires payment of the annual operation and maintenance cost of the supply works during the first 10 years of the 40-year contract period. During the next 20 years the charge will be \$5,100 per year, less the cost of operation and maintenance of water supply works operated by the district. During the last 10 years the annual charge will be \$5,200, less adjustments indicated above.

CONTRACT

District: Fort Clark irrigation district.

Date of contract: May 22, 1951.

Date of initial water delivery: 1956.¹

Type of contract: Combination repayment and water service.

Contract period: 40 years plus a 10-year development period.

¹ Water furnished on an interim basis prior to this date.

Water service rates: Actual operation and maintenance of supply works for the first 10 years, \$5,100 per year for the next 20 years, and \$5,200 per year for the last 10 years of the contract period.

Operation and maintenance assessments history¹

Fiscal year	Accruals	Collections
1956-----	\$4, 700	\$4, 700
1957-----	4, 700	4, 700
Total-----	9, 400	9, 400

¹ Assessments under the water service portion of the contract.

As of June 30, 1956, no repayment amounts were due under the terms of the contract.

FRENCHMAN-CAMBRIDGE DIVISION, NEBRASKA

Construction of the Frenchman-Cambridge division in southwestern Nebraska was initiated early in 1947. It was authorized by the Flood Control Act of 1944 (58 Stat. 887) and is being developed on the Republican River and four of its tributaries to provide flood control in the valley and downstream area; irrigation of 64,360 acres, including 10,490 acres already irrigated; fish and wildlife conservation; recreational opportunities; and pollution abatement.

Structural features and lands to be irrigated, which mostly follow the course of the Republican River and Frenchman Creek, are located in 7 counties: Chase, Hayes, Frontier, Hitchcock, Red Willow, Furnas, and Harlan. Major works will consist of 4 multiple-purpose reservoirs, 4 diversion dams, and the necessary canals, laterals, and drains to serve the project lands. Three of the major structures, Medicine Creek, Trenton, and Enders Dams, are complete. Red Willow Dam, which will complete the storage facilities, is yet to be constructed. Initial water to newly irrigated lands was made available in 1951 in the form of canal-side deliveries.

The current estimated cost of the division is \$79,651,454. A total of \$19,656,754 is allocated as nonreimbursable: \$19,616,754 to flood control, and \$40,000 to fish and wildlife. Reimbursable costs total \$59,994,700, including \$59,879,000 for irrigation and \$115,000 for the specific cost of recreation facilities. Red Willow Dam and Reservoir, previously a Corps of Engineers development, has been transferred by Congress to the Bureau of Reclamation and is included in the

total cost estimates. The current estimated cost for Red Willow Dam and Reservoir is \$8,259,000.

The irrigable lands of the division are to be served by 3 irrigation districts. Construction to date has been primarily associated with the storage dams and reservoirs to supply all 3 districts and with carriage and distribution works to serve the Frenchman-Cambridge irrigation district, largest of the 3.

In the Frenchman-Cambridge irrigation district, the irrigation works to serve block I—composed of about 22,600 acres of irrigable land under the Cambridge diversion dam, canal and laterals—have been completed and turned over to the district for operation and maintenance. Construction is in progress on the Meeker-Driftwood system of canals, laterals and drains to serve about 16,500 acres which will be in block II. Construction of the irrigation works below the proposed Red Willow Dam and Reservoir, to serve about 4,100 acres of land under the Red Willow and McCook Canals has not been started.

Construction to enlarge the Culbertson Canal, which will serve both the old Frenchman-Valley irrigation district and the newly organized H & RW irrigation district, was initiated in 1957. For the past several years surplus waters stored in Enders Reservoir have been made available to the Frenchman-Valley district to supplement its stream-flow rights in the irrigation of about 9,600 acres. The district's water supply under its repayment contract will be delivered during reconstruction of the Culbertson diversion dam and enlargement of the Culbertson Canal. Construction has not been started on additional facilities, particularly the Culbertson Canal extension and laterals to serve the H & RW irrigation district which contains about 11,500 acres of irrigable land.

Repayment contracts.—A water service and repayment contract dated May 29, 1947, with the Frenchman-Cambridge irrigation district, failed court confirmation and was amended July 19, 1951, to eliminate the court's exceptions. This contract was amended further on January 4, 1956. As amended the contract provides for a construction obligation of \$4,401,000, payable in 40 annual installments for each irrigation block following a 5-year development period. In addition, the district will pay a water service charge of \$14,500 for delivery of three-fourths of its water supply and \$1 per acre-foot for the remainder of its water

requirements. The charge of \$14,500 is designed to cover the cost of operation and maintenance of the reserved works, and it is estimated that the \$1 rate will recover an average of \$19,500 annually or \$682,500 over a period of 35 years on water-supply construction costs. The district will construct "future" drains currently estimated at a cost of \$1,301,000.

A water-service contract was entered into with the Frenchman Valley irrigation district on November 7, 1956. This contract provides: (a) for acquisition by the United States of the district's Culbertson diversion dam and canal at an appraised value of \$247,000; (b) for delivery of 20,000 acre-feet of the district's water supply upon advance of a fixed, annual, water-service charge of \$14,880, of which \$6,180 is represented by an annual credit to the district until the credits total \$247,000 in payment for the diversion dam and canal, leaving a net annual water-service charge of \$8,700; (c) for the delivery of additional water at a water-service rate of \$1.50 per acre-foot; and (d) for joint use of the diversion dam and canal by the two irrigation districts. It is estimated that the fixed, annual water-service charge will cover the districts' share of operation and maintenance of works operated by the Bureau and return \$460,800 in a period of 40 years on construction costs. Further, it is estimated that additional water-service charge of \$1.50 will return \$90,000 during this same period, making a total repayment of \$550,800.

A combination water-service and repayment contract was entered into, also on November 7, 1956, with the H & RW irrigation district which includes lands not heretofore irrigated in Hitchcock and Red Willow Counties. This contract provides for: (a) extension of the Culbertson Canal and construction of distribution and drainage systems to serve the 11,500 acres of irrigable land; (b) repayment in 40 years of the cost of constructing the distribution and drainage works as a construction charge obligation of \$1,320,000; and (c) payment of annual water-service charges by the district to cover operation and maintenance costs of Enders Reservoir and to yield an estimated total of \$201,000 in 35 years to apply on the construction cost of water supply works.

Reimbursable construction costs in excess of the payment capacities of the districts will be amortized by power revenues from the Missouri River Basin project.

No accruals to date under the contracts.

WATER SERVICE CONTRACT

District-----	Frenchman-Cambridge irrigation district.
Date of contract-----	May 29, 1947; amended July 19, 1951; amended January 4, 1956.
Date of initial water delivery-----	1951, under temporary water rental arrangements.
Type of contract-----	Combination 9 (d)—9 (e).
Contract period-----	40 years.
Water service rates-----	\$14,500 plus \$1 per acre-foot for all water in excess of 58,000 acre-feet.

The summary of status of repayment contracts:

Total value of construction charge obligations-----	\$5,721,000
Total matured charges-----	0
Total matured charges repaid-----	0
Total matured charges unpaid-----	0

GLENDON UNIT—OREGON TRAIL DIVISION, WYOMING

The multiple-purpose Glendo unit will provide irrigation water supplies, generate electric power, serve flood control, and restore fishery values in the North Platte River. Other related benefits in the form of pollution abatement, sediment control, recreation, and improvement of municipal and industrial water supplies will accrue. Principal features of the unit are Glendo Dam, Reservoir, and powerplant near Glendo, Wyo., and Fremont Canyon powerplant at the backwaters of Alcova Reservoir. A definite plan report was reviewed by the States of Colorado, Nebraska, and Wyoming and approved by Congress on July 16, 1954. By stipulation amending the North Platte River decree, Glendo Reservoir will provide for the use of 40,000 acre-feet of water annually for irrigation in Wyoming and Nebraska.

Construction began on Glendo Dam and powerplant in November 1954, and on Fremont Canyon powerplant in July 1956. Estimated construction costs are \$39,249,140 allocated as follows: power \$30,246,630; irrigation \$4,004,880; flood control \$4,330,800; fish and wildlife \$653,830; and recreation \$13,000. The power allocation is repayable within 50 years with interest at 3 percent as a part of the overall Missouri River Basin power system. It is anticipated that water users will repay a major portion, if not all, of the irrigation costs. Flood control and fish and wildlife costs

are nonreimbursable. Any remainder of the irrigation investment and the recreation allocation will be paid by basinwide power revenues.

Water-service repayment contracts are being negotiated with existing irrigation districts and canal companies to supplement their stream flow supplies. It is anticipated that the water users will pay irrigation's share of the allocated costs via the renewable water-service contracts. It is expected that one or more of the repayment contracts will be executed by the end of 1957.

HANOVER-BLUFF UNIT—BIGHORN BASIN DIVISION, WYOMING

The Hanover-Bluff unit was authorized by the Flood Control Act of 1944 (58 Stat. 887). The unit consists of two areas to be irrigated by pumping water from existing private canals that divert from the Bighorn River. The Highland Hanover area, containing 6,153 acres of irrigable land on the east side of the Bighorn River, will receive its water from the main canal of the Hanover irrigation district. The Upper Bluff area, containing 1,242 acres of irrigable land on the west side of the river will receive its water from the main canal of the Bluff irrigation district. Both new areas are assured an adequate water supply from the Boysen Reservoir, a feature of the Boysen unit, Missouri River Basin project.

Construction of the unit started in fiscal year 1955. The announcement of the availability of water is scheduled for the spring of 1958, though water may be furnished to some of the private lands during the irrigation season of 1957. The total estimated cost of the unit is \$3,566,500; \$3,502,303 is allocated to irrigation and \$64,197 to fish and wildlife. Operation and maintenance of the unit will be a joint activity with the old irrigation districts adjoining the new areas.

Highland Hanover irrigation district.—Under the contract signed April 8, 1955, part A provides for the payment by the district of \$1,430 a year for 30 years on the cost of the water supply works and part B provides that the construction charge obligation of \$513,800 for the distribution works will be repaid in 40 years.

Upper Bluff irrigation district.—Under the contract signed April 8, 1955, part A provides for the payment by the district of \$440 a year for 30 years on the cost of the water supply works and part B provides that the construction charge obligation

of \$158,760 for the distribution works will be repaid in 40 years.

The contract with each district provides a 10-year development period, after which repayment of construction charges will begin. The water users will repay a total of \$728,660 under the 2 contracts. The remainder of the reimbursable costs, amounting to \$2,773,643, will be repaid by surplus basinwide power revenues.

HEART BUTTE UNIT—HEART DIVISION, NORTH DAKOTA

Heart Butte unit is located on the Heart River in Grand and Morton Counties in southwestern North Dakota. State Highway No. 49 crosses Heart Butte Dam about 15 miles south of Glen Ullin and the irrigable areas extend eastward from there for about 60 miles along the Heart River to the city of Mandan. The unit is a multiple-purpose development designed to provide flood control for downstream areas, controlled conservation for irrigation of 13,100 acres, sedimentation control, fish and wildlife conservation and recreational benefits.

The principal features of the unit include a rolled-earth-fill dam with a glory-hole type spillway and outlet works, a 225,500 acre-foot reservoir, wildlife habitat areas to replace those inundated by the reservoir, and necessary pumping plants, laterals and drains to serve the irrigable lands. Construction of the dam was essentially completed in December 1949, and it has since played a major role in providing flood protection, particularly to the city of Mandan, N. Dak. Wildlife habitat replacement areas and minimum recreational facilities have been essentially completed. Construction of facilities to irrigate the 2,463 irrigable acres of the Western Heart River irrigation district was substantially complete as of June 30, 1956. Construction of irrigation facilities required to serve the rest of the 13,100 acres will not be started until appropriate repayment arrangements have been made.

The current estimated total unit cost is \$6,545,319, of which \$3,762,957 represents the cost of Heart Butte Dam and Reservoir. A total of \$1,557,639 is currently allocated to flood control and \$410,852 to fish and wildlife as nonreimbursable. Of the reimbursable cost, \$4,565,828 is allocated to irrigation and \$11,000 to recreation.

The reimbursable cost is scheduled for repayment as follows:

By irrigation water users (\$165,750 by the Western Heart River irrigation district plus \$718,250 future)-----	\$884, 000
By surplus basinwide power revenues-----	3, 681, 828
Total reimbursable-----	4, 565, 828

Heart Butte Dam and Reservoir are operated by the Bureau of Reclamation and financed by direct appropriation. Management of the reservoir area is the responsibility of the North Dakota State Game and Fish Department under a contract with that agency. Prior to the beginning of the 7-year development period, currently assumed to be January 1, 1958, water will be furnished to the landowners of the Western Heart River irrigation district on an interim basis, incidental to testing and priming of the system. The costs incurred, offset by revenues received, will be charged to construction accounts. The contract with the irrigation district provides that irrigation facilities will be operated by the water users. The districts' annual payments to the Mor-Gran-Sou Electric Cooperative, toward operation and maintenance of transmission facilities serving the pumping plants, are on a graduated schedule conforming to anticipated development of the irrigable acreage during the development period.

Repayment and water-service contracts.—The combination contract with the Western Heart River irrigation district provides that, following a 7-year development period, \$145,200 of the distribution facilities construction cost will be repaid in 40 years, and an estimated \$20,550 of the supply work construction cost will be repaid in 30 years. It also provides that the district will pay an allocated share of the water supply operation and maintenance cost.

CONTRACT

District: Western Heart River irrigation district.
 Date of contract: December 16, 1954.
 Date of initial water delivery: 1958.¹
 Type of contract: Combination repayment and water-service.
 Contract period (years): 40.
 Water service rates: Water service, \$0.30 per irrigable acre per year (the allocation of operation and maintenance costs on Heart Butte Dam and Reservoir).
 Repayment, \$3,630 per year for 40 years on distribution system and \$685 per year for 30 years on the supply works.
 As of June 30, 1957, no assessments have accrued under the contract.

¹ Water furnished on an interim basis prior to this date.

HELENA VALLEY UNIT—HELENA-GREAT FALLS DIVISION, MONTANA

The Helena Valley Unit is located in Lewis and Clark County near Helena, Mont.

The construction of this unit was authorized by the Flood Control Act of December 22, 1944 (58 Stat. 887), which approved the general comprehensive plan set forth in Senate Documents 191 and 475, as revised and coordinated by Senate Document 247, 78th Congress, 2d session.

Construction of the Helena Valley unit will provide for irrigation of 17,631 acres, of which full irrigation supply will be furnished to 7,775 acres of dry land and 5,233 acres now inadequately served by the rapidly deteriorating private pumping system and a supplemental irrigation supply for 4,623 acres presently receiving a partial supply by diversion from Prickly Pear, Silver, and Ten Mile Creeks. The Canyon Ferry Dam, a multiple-purpose structure, will store water to be lifted by hydraulic turbine-driven pumps to the Helena Valley tunnel. The water will flow by gravity through the 2.6-mile tunnel, passing under the Spokane Hills into Helena Valley. The Helena Valley Canal (34 miles long) will convey water around the south, west, and north sides of the bowl-shaped valley, terminating in a wasteway into Lake Helena. Helena Valley regulating reservoir, with an active capacity of approximately 10,600 acre-feet, will be located at Mile 11 of the Helena Valley Canal. A system of drains will provide for the disposition of excess surface and sub-surface water from the unit lands. A 58-mile-long lateral system including all appurtenant structures will be constructed for the unit.

This unit also will provide for the storage of water in the regulating reservoir for municipal use by the city of Helena.

Tentative allocation of the total estimated cost of the Helena Valley unit is as follows: Estimated total cost \$11,645,000; irrigation \$10,700,817, municipal water \$652,535, recreation \$6,000, and fish and wildlife \$285,648.

Repayment contracts.—The Helena Valley irrigation district, organized on June 28, 1955, consists of 13,008 irrigable acres for which distribution works will be built to furnish a full water supply. The District entered into a repayment contract, dated November 26, 1956, with the United States. Under this contract, it is estimated that the district will repay approximately \$800,000 on the construction cost of the irrigation

distribution and supply works in 40 years. On August 27, 1956, a municipal water supply contract was executed with the city of Helena under which it is estimated that the city will pay \$665,000 of the construction costs of this unit with interest in addition to \$32,000 of Canyon Ferry costs allocated to the city of Helena and \$31,000 interest during construction not shown in the unit cost. Repayment negotiations will be carried on with prospective supplemental water users when sufficient interest is shown by them for the supplemental irrigation of significant portions of the 4,623 acres which require a supplemental water supply.

CONTRACTS

- 1956, August 27: 40-year water-service contract with city of Helena pursuant to section 9 (c) (2) of the Reclamation Project Act of 1939. Minimum annual payment \$9,700 in advance, for which city entitled to 600 acre-feet of water delivered at outlet works of Helena Valley regulating reservoir. Additional water up to 5,680 acre-feet annually including the 600 acre-feet base quantity to be furnished on advance payment at rate of \$14 per acre-foot.
- 1956, November 26: 40-year combination water-service and repayment contract with Helena Valley irrigation district. Repayment obligation of \$726,914, payable in 80 equal successive semiannual installments after completion of 5-year development period. For annual water supply, district to pay full cost of operation and maintenance of water supply works plus 15 cents per irrigable acre.

JAMESTOWN UNIT—GARRISON DIVISION, NORTH DAKOTA

Jamestown unit is located on the James River in Foster and Stutsman Counties in east-central North Dakota. Jamestown Dam is about one-fourth mile north of Jamestown and the reservoir extends about 48 miles upstream from that city. It is a multiple-purpose unit with flood control for Jamestown and other cities being the initial purpose to be served. It will impound natural runoff and return irrigation flows from areas of the Garrison diversion unit for use on irrigable lands in the LaMoure and Oakes sections. Other benefits are: recreation, fish and wildlife, conservation, municipal water, and silt control.

The main feature of the unit is Jamestown Dam and Reservoir. The dam is of rolled earth-fill construction with a glory-hole type spillway and gated outlet works. The dam was designed to permit future installations for power generation when it becomes feasible, and it was so con-

structed that connections can be made to provide Jamestown with municipal water. The reservoir capacity is 230,000 acre-feet. Development of public-use and recreation facilities in the reservoir area is well advanced. Relocation of Arrowwood wildlife refuge facilities and installation of relief wells downstream from the dam remain to be done.

The estimated total cost of the unit is \$3,908,300, of which \$3,809,400 is for the Jamestown Dam and Reservoir. An amount of \$1,297,266 has been allocated to flood control and \$233,853 to fish and wildlife as nonreimbursable. The reimbursable cost has been allocated as follows:

Irrigation-----	\$2, 186, 160
Power-----	39, 679
Municipal water-----	71, 342
Recreation-----	80, 000

Total reimbursable-----	2, 377, 181
-------------------------	-------------

Jamestown Dam and Reservoir are operated by the Bureau of Reclamation, financed by direct appropriation. Management of the reservoir area is the responsibility of the Stutsman County Park Commission under an agreement with that organization.

This unit will function in connection with Garrison diversion unit now under investigation. Therefore, repayment negotiations have not been started.

KEYHOLE UNIT—CHEYENNE DIVISION, SOUTH DAKOTA

Keyhole Dam and Reservoir, located on the Belle Fourche River in Crook County, Wyo., was authorized by the Flood Control Act of 1944 (58 Stat. 887). The purposes of the Keyhole Dam and Reservoir are to provide supplemental water for the Belle Fourche irrigation district, water for irrigation of land in Wyoming, flood control, a source for municipal water and pollution abatement for the city of Belle Fourche, recreation, and fish and wildlife conservation. Under the terms of the Belle Fourche River compact, Wyoming is entitled to 10 percent of the unappropriated flow of the Belle Fourche River and as such may purchase up to 10 percent of the storage capacity of the reservoir for the development of lands and municipal water facilities in their state.

The major work involved is Keyhole Dam, a rolled earth-fill structure with a maximum reservoir capacity of 340,000 acre-feet. Water will be released from the outlet works of the dam into the

Belle Fourche River for its multiple uses. Construction of the dam was completed in 1952.

The total estimated cost of Keyhole unit is \$4,762,924, tentatively allocated as follows: irrigation \$2,275,886, flood control \$2,028,573, recreation \$91,000, and fish and wildlife \$367,465.

Keyhole Dam and Reservoir is being operated by the Bureau of Reclamation with appropriated funds. It is anticipated that a contract providing for delivery of water to the Belle Fourche project will be negotiated subsequent to agreement by the officials of Wyoming and South Dakota on the interpretation of the Belle Fourche River compact. As now contemplated, the proposed 40-year water-service contract to be negotiated with the Belle Fourche irrigation district will provide for specified water-service payments to cover appropriate irrigation operation and maintenance and construction costs.

The city of Belle Fourche passed a resolution dated June 9, 1950, indicating an interest in entering into an agreement with the United States Government to purchase water from the Keyhole Reservoir for industrial use, pollution abatement, and other municipal purposes.

CONTRACTS

1952, December 12: Interim contract with the Belle Fourche irrigation district providing for furnishing water at gates of the dam for the 1952 irrigation season at the rate of \$2.50 per acre-foot. Payments received by the Bureau under this contract totaled \$4,030.

1953, May 5: Interim contract with the Belle Fourche irrigation district providing for furnishing water at the gates of the dam for the 1953 irrigation season at the rate of \$2.50 per acre-foot. No water was delivered under this contract.

1954, July 28: Interim contract with the Belle Fourche irrigation district providing for furnishing water at the gates of the dam for the 1954 irrigation season at the rate of \$2.50 per acre-foot. Payments received by the Bureau under this contract totaled \$2,500.

1955, June 8: Interim contract with the Belle Fourche irrigation district providing for furnishing water at the gates of the dam for the 1955 irrigation season at the rate of \$2.50 per acre-foot. No water was delivered under this contract.

1956, May 25: Interim contract with the Belle Fourche irrigation district providing for furnishing water at the gates of the dam for the 1956 irrigation season at the rate of \$2.50 per acre-foot. Payments received to date by the Bureau under this contract total \$5,000.

KIRWIN UNIT—SOLOMON DIVISION, KANSAS

The Kirwin unit in Phillips, Smith, and Osborne Counties, Kans., will provide benefits from flood control, irrigation, fish and wildlife, and recreation. Principal features are the Kirwin Dam and Reservoirs, completed in 1955; the Kirwin Main, North and South Canals; and appurtenant distribution works now under construction for the irrigation of 11,500 acres along Solomon River between Kirwin and Portis, Kans.

Tentative allocation of the \$19,929,100 total estimated project cost indicates \$11,839,000 to be nonreimbursable for flood control and \$8,090,100 to be reimbursable for irrigation and recreation. The specific cost of recreation developments included as reimbursable is \$10,000.

The reservoir was constructed and operated initially for flood protection. A water service and repayment contract with the Kirwin irrigation district No. 1 was executed in June 1953 and amended October 18, 1955, to provide for acquisition of rights-of-way by the district. The construction obligation covering the distribution works is \$1,500,000, payable in 40 equal annual installments following a 5-year development period. Payments on construction of the water supply works will be made in the form of a construction component in water service charges. It is estimated that the component will amount to \$157,500 over the contract period. The irrigation district has assumed the responsibility for construction of such drainage works as may be required, the costs of which are estimated at \$607,000. Reimbursable construction costs beyond the payment capacity of the irrigation district will be amortized by power revenues of the Missouri River Basin project.

No payments have accrued under the contract.

WATER SERVICE CONTRACT

District.....	Kirwin irrigation district No. 1.
Date of contract.....	June 9, 1953; amended Oct. 18, 1955.
Date of initial water delivery.....	June 1957.
Type of contract.....	Combination 9 (d)-9 (c).
Contract period.....	40 years.
Water service rates.....	\$3,400, plus \$1 per acre-foot for water in excess of 14,000 acre-feet.

The summary of status of repayment contracts:

Total value of construction charge obligations..	\$1,500,000
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

KORTES UNIT—OREGON TRAIL DIVISION, WYOMING

The Kortes Dam, Reservoir, and powerplant was the first unit of the Missouri River Basin project to be built by the Bureau of Reclamation. Construction was started May 17, 1946, the first power generated in June 1950, and construction completed in March 1951.

Kortes Dam is situated on the North Platte River between Seminole Dam and Pathfinder Reservoir. Kortes powerplant takes advantage of the difference in head between Seminole and Pathfinder Reservoirs. The powerplant of 3 generating units has a capacity of 36,000 kilowatts. No storage or irrigation facilities are incorporated with the Kortes unit, the small capacity serving as a forebay pool for powerplant regulation only.

The entire construction cost of \$13,697,000 is allocated to power. The power allocation is repayable as a part of the total Missouri River Basin project power system within a period of 50 years with interest at 3 percent.

The Bureau of Reclamation operates the dam and powerplant and finances operation and maintenance costs directly.

LOWER MARIAS UNIT—MARIAS DIVI- SION, MONTANA

The Lower Marias unit is located in north-central Montana in Chouteau, Hill, and Liberty Counties. The main body of the unit lies approximately 30 miles north of Fort Benton, the county seat of Chouteau County, and about 33 miles southwest of Havre, the county seat of Hill County. Big Sandy and Box Elder lie in the eastern portion of the unit.

The Lower Marias unit was authorized by the Flood Control Act of 1944 (58 Stat. 887), which approved the general comprehensive plan set forth in Senate Documents 191 and 475, as revised and coordinated by Senate Document 247, 78th Congress, 2d session.

The major benefit of the multipurpose Lower Marias unit will be the irrigation of 127,000 acres of dry land. Other benefits are flood control,

recreation, silt control, fish and wildlife conservation, and municipal water.

The main features of the unit consist of Tiber Dam, Reservoir, Marais, Kenilgravity, and Sandy Gravity Canals, a complete lateral system, surface and subsurface drains, and Lonesome Lake Reservoir. Tiber Reservoir will have a storage capacity of 1,337,000 acre-feet. The Marias Canal will be about 77 miles in length and other major canals about 140 miles long. Lonesome Lake Reservoir, with a storage capacity of 20,000 acre-feet, will collect return flows to be reused for irrigation of approximately 17,000 acres served by the Sandy Gravity Canal.

To date, the Marias irrigation district, which was organized on June 7, 1950, has not entered into a repayment contract with the Government.

The contract for construction of Tiber Dam was awarded on September 12, 1952, and will be concluded during January 1957.

The total costs of \$70,187,000 are allocated as follows: irrigation \$61,902,000, power \$2,389,000, and recreation \$111,000. The flood control allocation of \$4,286,000 and fish and wildlife allocation of \$1,499,000 are nonreimbursable.

Tiber Dam will be operated by the Bureau of Reclamation.

OWL CREEK UNIT—BIGHORN BASIN DIVISION, WYOMING

Authorization for this unit was included in the general authorization for the Missouri River Basin project under the Flood Control Act of 1944 (58 Stat. 887). The development plan for the unit is primarily to construct Anchor Dam and Reservoir, the Lucerne pumping plant and Relift pumping plant, and appurtenant facilities. These will be used to provide the much needed supply of supplemental water for approximately 16,000 acres of land, some of which are Indian lands in the Arapahoe Ranch, from that portion of the water supply of Owl Creek which can be made available from storage at Anchor Reservoir and from the natural flow of the Bighorn River which may be supplemented from storage at Boysen Reservoir. The unit works are to be operated and administered so that the available water is distributed proportionately and equitably to all irrigated lands of the unit strictly in accordance with beneficial use and other applicable requirements of the laws of the State of Wyoming.

The estimated cost of construction on the Owl Creek unit is \$4,569,000, of which \$4,427,000 is allocated to irrigation, \$54,000 to flood control, and \$88,000 to fish and wildlife.

The unit is composed of three district areas: Lower (Lucerne and Dempsey), Middle, and South Fork, each of which has physical characteristics that necessitated separate studies thereon. Because of the more restricted crop adaptation at the higher elevation, the Middle and South Fork areas have a somewhat lower payment capacity than the Lower area.

In 1950 a contract was executed by the Owl Creek irrigation district, but execution by the United States was withheld because of the Wyoming Supreme Court decision which stated that the contract could not be enforced against objecting landowners until the excess land provisions were deleted from the contract. The excess land laws were made inapplicable to the Owl Creek unit by the act of August 28, 1954 (68 Stat. 690), after which the board of commissioners renewed their efforts in favor of constructing the unit. An order entered into on March 11, 1955, by the district court of Hot Springs County included in the district the lands of the former objectors. As a result of this and of further investigation, a new contract between the Owl Creek irrigation district and the United States was entered into on October 28, 1955, and construction of the Lucerne pumping plant and Relift was initiated. Completion of this portion of the unit will make it possible to obtain water from the Bighorn River or Boysen Reservoir for lands in the lower area. Beginning of construction of Anchor Dam is awaiting favorable negotiations with the Arapahoe and Shoshone Indians on the reservoir right-of-way.

Repayment contract.—The repayment contract with the Owl Creek irrigation district (October 28, 1955) provides for the repayment of \$23,269 each year for a period of 40 years after the Government gives the district notice that the construction of the Owl Creek unit will be sufficiently complete to permit the furnishing of the district water supply to district lands. The per-acre payments to be made by the water users were based upon a benefit factor, derived from a combination of three items, namely: (1) amount of supplemental water to be supplied, (2) regulation of natural flow rights, and (3) land classification. The contract also provides that the district shall as-

sume responsibility for the operation and maintenance of the Lucerne and Lucerne Relift pumping plants and the Anchor Dam and Reservoir on January 1 of the year following the year in which construction of the pumping plant and the dam are sufficiently complete to permit the furnishing of water to district lands. The Lucerne and Lucerne Relift pumping plants were completed during 1956. Water will be available for these pump lands of the district in 1957. The district is expected to assume responsibility for that portion of the unit on January 1, 1957. Construction of Anchor Dam will take additional time. Payments under this contract will amount to \$930,760 in a 40-year period.

If a contract can be negotiated on the same basis with the Arapahoe Indians, an annual payment of \$2,973 would result in a total construction payment of \$118,920 in 40 years. The balance of the reimbursable construction costs would be repaid by other sources of revenue in the Missouri River Basin project.

RAPID VALLEY UNIT—CHEYENNE DIVISION, SOUTH DAKOTA

Pactola Dam and Reservoir is located on Rapid Creek, a tributary of the Cheyenne River about 15 miles west of Rapid City in Pennington County, S. Dak. It was authorized by the Flood Control Act of 1944 (58 Stat. 887).

The purpose of the dam and reservoir is to provide municipal water for Rapid City and the Ellsworth Air Force Base; a full water supply for 2,200 acres of irrigable land and supplemental water for 8,900 acres in the Rapid Valley Conservancy District located along Rapid Creek downstream from Rapid City in Pennington County. Other purposes include much needed flood protection for Rapid City and lands adjacent to Rapid Creek, recreation, and fish and wildlife.

Pactola Dam is a zoned earthfill structure with a height of 220 feet above streambed and a length of 1,340 feet on the main crest. At top of conservation pool storage it has a storage capacity of 56,000 acre-feet with a surface area of 860 acres. Water is to be delivered and paid for at the outlet works of Pactola Dam. Rapid City will divert its water from Rapid Creek into the municipal water system at their pumping plant located on Rapid Creek near the city limits. Water for the Ellsworth Air Force Base

will be diverted through the same system. A definite plan for irrigation has not been completed as yet.

Total estimated cost of the Rapid Valley unit, of which Pactola Dam and Reservoir was essentially completed in 1956, is \$9,158,467, of which \$1,000,000 is applicable to the United States Air Force as its share for a water supply and is non-reimbursable. The total estimated cost is allocated as follows: irrigation \$3,315,425, municipal water \$1,785,000, United States Air Force \$1,000,000, flood control \$2,368,353, and fish and wildlife \$689,689. The dam is to be operated by the United States Government with funds advanced by Rapid City.

Municipal water-service contract.—A water-service contract was executed with Rapid City on October 20, 1952. The city will make payments to the United States in accordance with the following schedule:

Water year of payment	Basic total annual intake of city's water system	Basic annual payment
	<i>Acre-feet</i>	
1 to 5-----	6, 200	\$24, 000
6 to 10-----	6, 900	36, 000
11 to 15-----	7, 700	48, 000
16 to 20-----	8, 500	60, 000
21 to 25-----	9, 300	73, 000
26 to 30-----	10, 000	84, 000
31 to 35-----	10, 700	96, 000
36 and annually thereafter-----	11, 400	107, 000

The contract provides for additional water to be purchased by the city as needed and if water is available for such use. The contract further provides that Rapid City shall, if so requested, furnish the Ellsworth Air Force Base with not more than 1,810 acre-feet of water per annum at a reasonable cost for the handling, treatment, and delivery of such water. Water in excess of the 1,810 acre-feet may be furnished upon such terms as the city and the Air Force base may agree upon.

The municipal water contract:

Organization-----	City of Rapid City, S. Dak.
Date of contract-----	Oct. 20, 1952.
Type of contract-----	Water service.
Contract period-----	40 years.
Date of initial water delivery.	Estimated 1958.
Rate of payment-----	On a graduated scale, increasing every 5 years over a 40-year period beginning with \$24,000 and ending with \$107,000 per annum.

The summary of status of municipal water-service contract:

Total value of contracted repayments-----	\$2, 640, 000
Total matured charges-----	0
Total matured charges repaid-----	0
Total matured charges unpaid-----	0

A repayment contract for irrigation water supply will be executed prior to delivery of water.

ST. FRANCIS UNIT—UPPER REPUBLICAN DIVISION, COLORADO

The St. Francis unit is located in Yuma County in northeastern Colorado. The principal features are the Bonny Dam and Reservoir, Armel pumping plant and a canal and lateral system to serve 6,000 acres of land currently dry farmed. The unit also contains 750 acres of irrigated land requiring a supplemental water system.

Bonny Dam and Reservoir, authorized by the Flood Control Act of 1944 (58 Stat. 887), was completed in 1951. Construction of the remaining features of the unit are being deferred pending organization of the water users and negotiation of a repayment contract.

The total estimated construction cost is \$16,915,057, of which \$10,954,057 is tentatively allocated to flood control, and \$8,000 to fish and wildlife as nonreimbursable, and \$5,915,000 to irrigation, and \$38,000 to recreation as reimbursable.

Bonny Dam and Reservoir is being operated primarily for flood control. Substantial benefits, as anticipated, are accruing to fish and wildlife and to recreation. Public use of this facility has exceeded expectations. Since 1951 surplus irrigation water stored in the reservoir has been made available on an annual basis and water-rate charge to irrigators with stream-flow rights in need of a supplemental supply.

SARGENT UNIT—MIDDLE LOUP DIVISION, NEBRASKA

The Sargent unit in central Nebraska is being developed primarily for the irrigation of 17,560 acres of land along the Middle Loup River between the towns of Milburn and Comstock. The principal project works consist of the Milburn diversion dam to serve lands on both sides of the river, the Sargent Canal with appurtenant laterals and a small pumping installation to serve about 13,740 acres north of the river, the Lillian Canal with appurtenant laterals to serve about 3,820 acres south of the river, the Lillian powerplant (4,400-

kilowatt), and the drainage works. Construction of the powerplant and facilities to serve the area south of the river is being deferred.

The total estimated project cost of the Sargent unit is \$14,946,000, of which \$234,600 is allocated to flood control as nonreimbursable, and the balance to irrigation and power as reimbursable. The reimbursable allocation is \$8,416,400 to irrigation and \$6,295,000 to power.

A water service and repayment contract made September 11, 1954, with the Sargent irrigation district was amended March 23, 1957, as a part of interrelated water service, repayment, and operating arrangements among the Sargent irrigation district, the Farwell irrigation district, and the Loup Basin reclamation district. The 3 interrelated contracts with the 3 districts were all executed March 23. Under this arrangement, the Loup Basin reclamation district has a water-service contract with the United States and will deliver water to the 2 irrigation districts under service contracts with each. The Loup Basin reclamation district will operate and maintain the water-supply works serving each irrigation district and may, under the aforementioned service contracts, also operate and maintain the distribution works.

The repayment contract with the Sargent irrigation district, as amended, contains a construction charge obligation in the amount of \$1,785,400 to cover the costs of constructing the distribution works and the portion of the drainage works required immediately. The district is to construct additional drainage facilities, estimated to cost \$723,300, as required in the future. The Sargent district's construction charge obligation of \$1,785,400 is to be apportioned between the two irrigation blocks, one comprising the lands under the Sargent Canal, and the other the lands under the Lillian Canal. The Sargent district will pay the sum of the annual installments based on a 40-year repayment period following a 10-year development period for each block.

Although the Sargent irrigation district will not make any water-service payments to the United States, its potential share of the water-service payments to be made by the Loup Basin reclamation district is estimated at \$772,000 during the 40-year period of the Loup Basin contract. Substantial portion of that payment will be obtained from an ad valorem tax applied to property in the Reclamation district. All water-service charges to the Loup Basin reclama-

tion district, both fixed annual charges and additional water charges, will constitute net returns to the United States to apply on the costs of constructing the water supply works. Reimbursable construction costs in excess of the payment capacities of the districts will be amortized by power revenues from the Missouri River Basin project.

The summary of status of repayment contracts:

Total value of construction charge obligations.....	\$1, 785, 400
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

SAVAGE UNIT—YELLOWSTONE DIVISION, MONTANA

Savage unit, 2,216 acres of irrigable land, is a pumping unit of the Missouri River Basin project.

On July 14, 1948, Savage irrigation district entered into a repayment contract with the United States. Construction was completed on December 6, 1949, with water delivered in May 1950, and on August 8, 1950, the board of control of the Lower Yellowstone project assumed operation of the unit under "Agreement among the United States, Lower Yellowstone irrigation districts Nos. 1 and 2 and Savage irrigation district" dated February 1, 1949. The major irrigation works include a pumping plant having 42-cubic-foot-per-second capacity and an 84-foot lift; single 1,370-foot discharge line; 7.8 miles of main canal and 6.2 miles of laterals.

The total construction cost of the unit is estimated at \$560,000. \$546,000 is allocated to irrigation and \$14,000 to fish and wildlife. Of this amount, the water users will return \$143,750 on distribution system costs, plus an undetermined amount on the supply system costs. The remainder is to be covered by other sources of revenue from the Missouri River Basin project.

Repayment and water-service contracts.—The construction cost of the distribution works will be repaid over a 40-year period following an 8-year development period which started in 1950. The annual installments will amount to \$3,594.

The water-service contract for use of the supply works is for 40 years, beginning the first year water was delivered. The variable payment formula has been employed and the annual charge is obtained by multiplying the product

of the base charge (\$5,833 per year) and a production index factor (current gross crop value by base crop value—\$39.70 per acre) by the agricultural parity price ratio. This charge shall not be more than 200 percent nor less than 25 percent of the base charge, but in no case less than operation and maintenance of the supply works. Of the \$5,833 per year water-service payment, it is estimated that \$950 per year will represent the return to construction costs of water supply works.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$143, 750
Total matured charges.....	85
Total matured charges repaid.....	85
Total matured charges unpaid.....	0

SHADEHILL UNIT—GRAND DIVISION, SOUTH DAKOTA

The Shadehill Dam and Reservoir is located on the Grand River in Perkins County, S. Dak. It was authorized by the Flood Control Act of 1944. Construction of the dam was completed in 1951. Its purpose is to provide for flood control, water for irrigation of approximately 9,000 acres of land in Perkins and Corson Counties, recreation, and fish and wildlife conservation. A municipal water supply for the town of Lemmon may be obtained from the reservoir.

The completed feature is Shadehill Dam, an earthfill structure which will store 358,000 acre-feet of water; an additional 109,000 acre-feet of superstorage is provided for emergency flood control. Construction of additional facilities to permit the irrigation of land, and to supply water for municipal purposes, will not be undertaken until the quality of water has been determined to be satisfactory and water service and repayment arrangements have been completed.

The total estimated cost of the Shadehill unit is \$7,400,743, which has been allocated tentatively as follows: Irrigation, \$4,392,710; recreation, \$19,000; flood control (nonreimbursable), \$2,683,132; and fish and wildlife, \$305,901.

Shadehill Dam and Reservoir is being operated by the Bureau of Reclamation with appropriated funds.

TRANSMISSION DIVISION

The Transmission division of the Missouri River Basin project includes the necessary facilities required to market power and energy generated at

powerplants in the Missouri River Basin area. This area comprises all or parts of the 10 States of Montana, Wyoming, Colorado, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, and Missouri. The purpose of the transmission system is to make power and energy generated at reservoir projects under control of the Army Department and multipurpose projects of the Bureau of Reclamation available in wholesale quantities for sale to facilities owned by the Federal Government, public bodies, cooperatives, and privately owned companies. Generating capacity—now existing, under construction, scheduled, and planned—exceeds 2,380,000 kilowatts in the Missouri River Basin area.

Major features of the transmission system as presently designed and scheduled consist of approximately 2,018 miles of 230,000-volt transmission lines, of which nearly 600 miles are double-circuit, 5,507 miles of 115,000-volt transmission lines, 796 miles of 69,000-volt transmission lines and additional lower voltage lines as required, in addition to transmission substations with an aggregate installed transformer capacity of about 3,100,000 kilovolt-amperes. Additional substation capacity and some line extensions will be required, but locations and size of transformers cannot presently be determined with enough finality or accuracy to prepare specific construction schedules. The estimated cost provides for these additional investments. Associated general property investments, such as adequate dispatching and communication system, essential warehouses, shops, repair and transportation equipment, are also major items of the transmission system as presently developed.

The total estimated cost of the Transmission division is \$297,198,000. This sum is fully reimbursable and is allocated entirely to the power system of the Missouri River Basin project for repayment from sale of power and energy under existing and proposed future delivery contracts with cooperatives, municipalities, Federal authorities, and private utilities.

Of the 222 customers supplied in 1956, revenues from 192 were under \$100,000 each. The major remaining customers are tabulated below. Major wheeling contracts are also included.

The features of the Transmission division will be operated and maintained by the United States and will be financed directly from funds appropriated for that purpose.

Major power contracts—Missouri River Basin integrated system

Customers	Contract No.	Contract date*	Termination date	Present contract rate of delivery, kilowatts
REGION 6				
Central Power Electric Cooperative, Inc.-----	I79r-1593-----	Mar. 14, 1950	Dec. 31, 1985	42,000 SW.
East River Electric Power Cooperative, Inc.-----	14-06-600-1948--	July 9, 1956	-----do-----	62,300 FW.
Hot Springs County Rural Electric Association, Inc.-----	14-06-600-1603--	July 28, 1955	Dec. 31, 1965	7,890 F.
Interstate Power Co.-----	14-06-600-1557--	June 14, 1955	Dec. 31, 1976	W.
Marias River Electric Cooperative, Inc.-----	I79r-1071-----	Jan. 29, 1948	Dec. 31, 1957	{2,200 F. 2,800 S.
Montana Power Co.-----	I1r-1416-----	July 1, 1943	(²)	D.
Do-----	14-06-600-912--	Dec. 1, 1953	Dec. 1, 1963 ⁴	D.
Do-----	I79r-1836-----	Jan. 24, 1951	Dec. 31, 1960	W.
Do-----	I79r-1838-----	Jan. 25, 1951	Dec. 31, 1975	W.
Do-----	14-06-600-1845--	June 1, 1956	Apr. 30, 1976 ³	25,000 F.
Montana-Dakota Utilities Co.-----	14-06-600-2070--	Nov. 21, 1956	Dec. 31, 1975	{7,500 F.W. ¹ 67,500 S.
Northern States Power Co.-----	14-06-600-1556--	June 14, 1955	Dec. 31, 1976	W.
Do-----	14-06-600-1940--	July 2, 1956	-----do-----	D.
Northwestern Public Service Co.-----	14-06-600-2039--	Oct. 23, 1956	-----do-----	{15,000 F.W.D. ⁵ 60,000 S.
Otter Tail Power Co.-----	I79r-1592-----	Mar. 14, 1950	-----do-----	50,000 SW.
Minnkota Power Cooperative, Inc.-----	14-06-600-2003--	Aug. 27, 1956	Dec. 31, 1975	50,225 FW.
Pacific Power & Light Co.-----	I79r-2101-----	Jan. 1, 1950	Dec. 31, 1959	{13,610 FW. 1,000 SW.
Do-----	I81r-1260-----	May 15, 1950	July 31, 1959	{9,000 FW. 3,000 SW.
Do-----	I81r-1325-----	Sept. 1, 1950	Aug. 31, 1960	{1,000 F. 3,000 S.
Do-----	I81r-1502-----	Jan. 10, 1952	Dec. 31, 1961	1,500 F.
Rushmore G. & T. Electric Cooperative, Inc.-----	14-06-600-1700--	Nov. 15, 1955	Dec. 31, 1974	11,960 F.
REGION 7				
Cheyenne Light, Fuel & Power Co.-----	I81r-1434-----	Apr. 1, 1950	Mar. 31, 1960	{6,000 F. 5,500 S.
Fort Collins, Colo.-----	14-06-700-152--	July 29, 1954	Sept. 30, 1974	5,000 F.
Fort Morgan, Colo.-----	14-06-700-199--	Oct. 28, 1954	Nov. 30, 1974	{6,000 F. 1,500 P.
Highline Electric Association-----	14-06-700-704--	May 3, 1955	Oct. 31, 1974	{4,200 F. 1,200 P.
Intermountain REA-----	14-06-700-1231--	Oct. 18, 1956	Nov. 30, 1974	{7,000 F. 1,500 P.
Iowa Public Service Co.-----	14-06-700-993--	Apr. 1, 1956	Mar. 31, 1958	D.
Longmont, Colo.-----	14-06-700-1317--	Dec. 21, 1956	Aug. 31, 1976	8,000 F.
Morgan County REA-----	14-06-700-705--	May 4, 1955	Mar. 31, 1975	{8,000 F. 27,000 P.
Midwest Electric Membership Cooperative-----	14-06-700-857--	July 14, 1955	Oct. 31, 1974	3,700 F.
Monolith Portland-Midwest Co.-----	14-06-700-878--	-----do-----	July 31, 1959	2,500 F.
Nebraska Public Power System-----	14-06-700-124--	May 28, 1954	Dec. 31, 1989	125,000 FW.
Northwest Iowa Power Cooperative-----	14-06-700-11--	Aug. 6, 1952	Sept. 30, 1990	W.
Poudre Valley REA-----	14-06-700-691--	Apr. 18, 1955	Nov. 30, 1974	{5,000 F. 1,500 P.
Public Service Co. of Colorado-----	I81r-1242-----	Feb. 15, 1950	Dec. 31, 1959	7,000 peaking.
Do-----	I81r-1305-----	Aug. 18, 1950	Dec. 31, 1960	W.
Rural Electric Co.-----	14-06-700-1114--	May 7, 1956	Dec. 31, 1965	{4,250 F. 2,500 SPS.
Rawlins Electric Co.-----	I81r-1542-----	June 24, 1952	May 31, 1962	50 F.
Do-----	I81r-1240-----	Mar. 31, 1950	July 31, 1959	{930 F. 750 S.
San Luis Valley Rural Electric Cooperative-----	14-06-700-1411--	May 23, 1957	Mar. 31, 1977	{5,000 F. 4,000 SPS.
Union REA-----	14-06-700-1369--	Mar. 29, 1957	Apr. 30, 1977	{6,600 F. 4,500 SPS.
Wheatbelt Public Power District-----	14-06-700-882--	July 22, 1955	Aug. 31, 1974	5,100 F.
Y-W Electric Association-----	14-06-700-718--	May 18, 1955	Sept. 30, 1974	{340 SPS. 3,660 F.

* Contracts in effect as of June 30, 1957.

¹ After Nov. 30, 1960, the contract rate of delivery for firm power shall be zero.² 60 days notice.³ May be canceled by either party on 1 year notice after Apr. 30, 1962.⁴ May be terminated by either party on 30-day notice.⁵ Firm power to be available only when declared by the United States.

F—Firm. S—Secondary. D—Dump. P—Special Irrigation pumping.

W—Contract provides for Bureau to wheel over utility lines.

WEBSTER UNIT—SOLOMON DIVISION, KANSAS

The Webster unit in Rooks and Osborne Counties, Kans., is being developed to control floods on the South Fork of the Solomon River, and to irrigate 8,500 acres of land. Incidental benefits will accrue from fish and wildlife and recreation. Principal features are the Webster Dam and Reservoir, completed in June 1956; the Woodston Diversion Dam; the Osborne Canal, now under construction; pumping installations to serve a small area; and appurtenant laterals and drainage works.

The total estimated cost of \$16,549,200 is allocated: \$7,778,000 for flood control, and \$16,000 for fish and wildlife as nonreimbursable, and \$8,712,200 for irrigation and \$43,000 for recreation as reimbursable.

A water-service and repayment contract was signed April 24, 1957, with the Webster irrigation district No. 4. It contains a construction charge obligation of \$1,172,000 to cover the cost of the distribution works and drainage system required immediately. The District is to construct addi-

tional drainage facilities, estimated to cost \$272,000, as required in the future. Under the water-service provisions of the contract, the district will pay a fixed annual charge of \$3,700, estimated to cover its share of the cost of operation and maintenance of the reserved works, for delivery of three-fourths of its water supply plus \$1 per acre-foot for additional water. It is also estimated that the additional water charge will return \$157,500 in the 35 years following the development period toward the costs of constructing the water supply works. Reimbursable construction costs beyond the payment capacity of the irrigation district will be amortized by surplus power revenues from the Missouri River Basin project.

The district's construction charge obligation is payable in 40 equal annual installments following a 5-year development period.

The summary of status of repayment contracts:

Total value of construction charge obligations.....	\$1, 172, 000
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

MOON LAKE PROJECT

ROOSEVELT, UTAH

The Moon Lake project in Duchesne County, Utah, was found feasible by the Secretary on January 11, 1935, and approved by the President on November 6, 1935, pursuant to the acts of June 25, 1910 (36 Stat. 836), and December 5, 1924 (43 Stat. 702). Funds for construction of the project were provided by emergency relief acts commencing with the National Industrial Recovery Act of June 16, 1933.

The project was developed to furnish a supplemental water supply to about 75,000 acres of irrigable land. Project features include the Moon Lake Dam and Reservoir, Midview Dam and Reservoir, Yellowstone feeder canal, Duchesne feeder canal, and Midview lateral.

The total cost of constructing the project features was \$1,599,359 excluding \$200,500 of reimbursable CCC costs. The entire amount, plus operation and maintenance funded, less contributions of \$8,093, is repayable under the terms of the repayment contract with the Moon Lake Water Users Association.

The project is operated by the Moon Lake Water Users Association.

CONTRACTS

1934, June 22; 1939, March 20; and 1939, November 3: Contract Ilr 962 with Moon Lake Water Users Association for construction of Moon Lake Dam and Reservoir. Estimated cost, \$1,600,000, payable in 40 equal annual installments.

The summary of status of repayment contracts:

Total value contracted repayment.....	\$1, 592, 268
Total matured charges.....	557, 294
Total matured charges repaid.....	557, 294
Total matured charges unpaid.....	0

The cost and repayment allocations:

Total project cost.....	\$1, 599, 359
-------------------------	---------------

Allocation to irrigation, reimbursable.....	1, 599, 359
---	-------------

Repayment of reimbursable costs from irrigation water users:

For irrigation plant.....	1, 599, 359
Operation and maintenance funded.....	1, 002
Less contributions.....	8, 093

Total repayment obligation.....	1, 592, 268
---------------------------------	-------------

193

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjust- ments	Total	Cumulative total
1935	\$1, 500, 000							
1936	1, 500, 000							
1937	1, 500, 000							
1938	1, 500, 000							
1939	1, 550, 000							
1940	1, 600, 000							
1941	1, 600, 000							
1942	1, 600, 000							
1943	¹ 1, 592, 270							
1944	1, 592, 270	\$39, 806		\$39, 806	\$32, 755		\$32, 755	\$32, 755
1945	1, 592, 268	39, 807		39, 807	39, 807	\$7, 051	46, 858	79, 613
1946	1, 592, 268	39, 807		39, 807	39, 807		39, 807	119, 420
1947	1, 592, 268	39, 807		39, 807	39, 807		39, 807	159, 227
1948	1, 592, 268	39, 806		39, 806	39, 806		39, 806	199, 033
1949	1, 592, 268	39, 807		39, 807	39, 807		39, 807	238, 840
1950	1, 592, 268	39, 807		39, 807	39, 807		39, 807	278, 647
1951	1, 592, 268	39, 807		39, 807	39, 807		39, 807	318, 454
1952	1, 592, 268	39, 806		39, 806	39, 806		39, 806	358, 260
1953	1, 592, 268	39, 807		39, 807	39, 807		39, 807	398, 067
1954	1, 592, 268	39, 807		39, 807	39, 807		39, 807	437, 874
1955	1, 592, 268	39, 807		39, 807	39, 807		39, 807	477, 681
1956	1, 592, 268	39, 807		39, 807	39, 807		39, 807	517, 488
1957	1, 592, 268	39, 806		39, 806	39, 806		39, 806	557, 294
Total		557, 294		557, 294	550, 243	7, 051	557, 294	
Collected				557, 294				
Uncollected				0				

¹ Decrease in obligation due to adjustment to actual cost.

NEWLANDS PROJECT

FALLON, NEV.

The Newlands project (formerly the Truckee-Carson project), one of the first Reclamation projects constructed, conserves water from the Truckee and Carson Rivers to irrigate approximately 87,500 acres in Churchill County, Nev. The project was authorized by the Secretary of the Interior on March 14, 1903.

The original project features include Lahontan Dam and Reservoir, outlet works of Lake Tahoe, Derby Diversion Dam on the Truckee River, Carson Diversion Dam on the Carson River, Lahontan powerplant with an installed capacity of 1,640 kilowatts, Truckee Canal, 31 miles long, 73 miles of main canals, 504 miles of laterals, and 339 miles of open drains. The Truckee-Carson irrigation district has either acquired or constructed the following project features: Donner Lake storage space and outlet works, "S" canal regulating reservoir, Coleman and Sagouspe diversion dams on Carson River, Lahontan-Swingle Bench pumping plant, extension of lateral and drainage systems, a 2,000-kilowatt diesel powerplant and an 800-kilowatt hydroelectric powerplant on the "V" canal.

The total actual cost of constructing the Newlands project features was \$7,895,022. The entire amount, with the exception of the congressional chargeoff and other cost adjustments to be made, is repayable under the terms of the repayment contract with the Truckee-Carson irrigation district. The act of May 5, 1926, authorized the cancellation of \$4,462,070 construction charges.

Operation and maintenance of the project was transferred to the Truckee-Carson irrigation district on December 31, 1926.

Repayment contracts.—The Truckee-Carson irrigation district made its first payment on construc-

tion costs in 1907 as scheduled in public notice dated December 17, 1907. The December 18, 1926, contract with the district provided that the cost of the project features would be repaid in 40 years.

PUBLIC NOTICES AND CONTRACTS

- 1907, May 6: Public notice. Construction charge \$22 per acre, payable in 10 equal annual installments.
- 1907, November 1: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.
- 1914, August 19: Public notice. Construction charge \$60 per acre, payable in 20 graduated annual installments.
- 1916, February 11: Public notice. Construction charge \$60 per acre, payable in 20 graduated annual installments.
- 1917, October 30: Public notice. Supplemental construction for certain lands, rate \$10 per acre, payable in 2 equal annual installments.
- 1918, April 10: Public notice. Construction charge \$65 and \$115 for leveled land, payable in 20 graduated annual installments.
- 1920, October 19: Public notice. Construction charge \$80 per acre, payable in 20 graduated annual installments.
- 1921, January 22: Contract Ilr-560 with Truckee-Carson irrigation district for construction of a drainage system at estimated cost of \$700,000, payable in 40 equal semiannual installments.
- 1925, April 30: Contract with Truckee-Carson irrigation district for additional drainage work at estimated cost of \$270,000, payable in 14 equal semiannual installments beginning January 1, 1946.
- 1926, December 18: Contract Ilr-93 with Truckee-Carson irrigation district. District assumes obligations under individual water-right applications. Time of repayment extended to 40 years. Additional construction work on Derby Dam and Truckee Canal. Assumption of deficit of \$500,000 to be paid from new water-right applications at \$54 per acre up to January 1, 1942, and balance on that date in 60 equal semiannual installments.

- 1935, July 1: Agreement between the United States, Truckee-Carson irrigation district, Washoe County water conservation district, Sierra Pacific Power Co., and other users of the waters of Truckee River, to further conserve the waters of Lake Tahoe and Truckee River by combination of storage features which should be so operated as to conform with present decrees and rates of river flow at designated gaging stations and at the same time permit additional benefits to be obtained.
- 1944, June 14: Contract with Truckee-Carson irrigation district. Deficit to be paid only from water-right applications at \$54 per acre upon lands not under water-right applications on January 1, 1942, with a repayment period not to exceed 40 years.
- 1955, March 10: Contract with Truckee-Carson irrigation district grants to the district, for a period of 50 years, a license to construct, operate and maintain the diesel powerplant and the "V" canal powerplant on lands described in the contract. Net power revenues received by the district from the two plants are to be credited first to the construction cost of said plants, including replacements, interest and carrying charges; second, to the payment of annual obligations of the district to the United States; and then as the district may determine.

The summary of status of the Truckee-Carson irrigation district repayment contracts:

Total value of contracted repayment.....	\$3, 257, 749
Total matured charges.....	2, 791, 864
Total matured charges repaid.....	2, 791, 864
Total matured charges unpaid.....	0

The allocation and repayment of costs:

Total project cost.....	\$7, 895, 022
Allocation to irrigation:	
Reimbursable.....	3, 432, 952
Chargeoff by Congress, act of May 25, 1926.....	4, 462, 070
Total.....	7, 895, 022

Repayment of reimbursable costs:

Total, reimbursable costs.....	\$3, 432, 952
Operation and maintenance funded.....	68, 739
Interest and penalties funded.....	14, 886
Subtotal.....	3, 516, 577
Less:	
Revenues.....	32, 600
Contributions.....	1, 453
Pending adjustment.....	224, 775
Subtotal.....	258, 828
Total repayment obligation.....	3, 257, 749

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1908.....	\$9, 860	\$6, 023
1909.....	14, 293	12, 307
1910.....	19, 464	21, 469
1911.....	21, 601	21, 332
1912.....	22, 484	22, 688
1913.....	28, 915	14, 254
1914.....	27, 867	42, 736
1915.....	28, 369	21, 768
1916.....	41, 835	35, 125
1917.....	42, 583	43, 538
1918.....	42, 156	48, 078
1919.....	73, 271	66, 334
1920.....	85, 892	89, 462
1921.....	106, 316	76, 924
1922.....	122, 467	88, 744
1923.....	117, 626	102, 078
1924.....	108, 691	92, 067
1925.....	109, 605	101, 888
1926.....	87, 136	122, 035
1927.....	7, 764	72, 014
1928.....	2, 846	15, 665
1929.....	15, 911	20, 423
1930.....	15, 611	15, 611
1931.....	14, 809	14, 809
1932.....	7, 210	7, 210
Total.....	1, 174, 582	1, 174, 582

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1908		\$59,777		\$59,777	\$2,058		\$2,058	\$2,058
1909		22,147		22,147	25,130		25,130	27,188
1910		51,696		51,696	50,690		50,690	77,878
1911		70,773		70,773	64,995		64,995	142,873
1912		70,992	¹ \$22,157	48,835	8,812	\$35,833	44,645	187,518
1913		72,085	¹ 50,082	22,003	11,720	15,228	26,948	214,466
1914		71,802	¹ 42,624	29,178	14,330	8,727	23,057	237,523
1915	\$865,439	25,009	¹ 60,287	¹ 35,278	21,093	5,932	27,025	264,548
1916	943,095	26,130	625	26,755	21,503	5,072	26,575	291,123
1917	1,053,557			24,452			24,715	315,838
1918	1,188,920			18,144			17,426	333,264
1919	1,431,587	170,503		40,020	165,063		41,584	374,848
1920	1,884,250			44,635			44,150	418,998
1921	2,022,972			43,252			37,188	456,186
1922	² 2,692,614	40,687	¹ 506	40,181	25,369	6,546	31,915	488,101
1923	2,638,279	45,361	¹ 6,561	38,800	27,428	5,252	32,680	520,781
1924	2,588,450	50,104	¹ 3,282	46,822	24,183	6,987	31,170	551,951
1925	2,540,333	62,064	¹ 17,161	44,903	32,913	16	32,929	584,880
1926	2,406,780	78,193	717	78,910	39,226	10,576	49,802	634,682
1927	³ 3,350,072	83,212	¹ 35,880	47,332	62,770	39,548	102,318	737,000
1928	3,299,449	68,572	¹ 29,754	38,818	67,642	¹ 3,417	64,225	801,225
1929	3,299,558	83,221	¹ 601	82,620	82,279	152	82,431	883,656
1930	3,260,278	81,905	¹ 352	81,553	79,743	766	80,509	964,165
1931	3,260,278	90,299	¹ 4,789	85,510	87,523	¹ 2,626	84,897	1,049,062
1932	3,276,504	⁴ 79,107		79,107	74,693	2,776	77,469	1,126,531
1933	3,276,504	⁴ 19,460	¹ 4,553	14,907	17,987	¹ 3,015	14,972	1,141,503
1934	3,282,965	⁴ 36,272	¹ 27,815	8,457	35,434	¹ 23,467	11,967	1,153,470
1935	3,289,004	⁴ 31,341	¹ 629	30,712	30,049	211	30,260	1,183,730
1936	3,284,400	⁴ 22,331	¹ 840	21,491	20,714	501	21,215	1,204,945
1937	3,284,853	⁴ 29,900	¹ 1,321	28,579	27,575		27,575	1,232,520
1938	3,284,853	51,022		51,022	46,984	2,597	49,581	1,282,101
1939	3,283,676	86,022		86,022	80,832	4,012	84,844	1,366,945
1940	3,283,676	85,961		85,961	81,532	5,190	86,722	1,453,667
1941	3,283,676	87,635		87,635	84,640	4,428	89,068	1,542,735
1942	3,283,676	99,499		99,499	97,273	2,996	100,269	1,643,004
1943	3,283,676	99,996		99,996	98,750	2,226	100,976	1,743,980
1944	3,281,999	94,249		94,249	86,192	3,246	89,438	1,833,418
1945	3,281,999	88,983		88,983	88,658	6,057	94,715	1,928,133
1946	3,281,999	64,200		64,200	64,118	315	64,433	1,992,566
1947	3,281,999	106,286		106,286	106,091	92	106,183	2,098,749
1948	3,281,999	98,802		98,802	98,688	195	98,883	2,197,632
1949	3,281,999	98,410		98,410	98,275	114	98,389	2,296,021
1950	3,281,999	96,649		96,649	96,570	135	96,705	2,392,726
1951	3,281,999	86,087		86,087	86,081	79	86,160	2,478,886
1952	3,281,999	94,772		94,772	94,772	6	94,778	2,573,664
1953	3,281,999	34,675		34,675	34,675		34,675	2,608,339
1954	¹ 3,257,749	50,417	¹ 2,527	47,890	47,890		47,890	2,656,229
1955	3,257,749	43,967		43,967	43,967		43,967	2,700,196
1956	3,257,749	49,688		49,688	49,688		49,688	2,749,884
1957	3,257,749	41,980		41,980	41,980		41,980	2,791,864
Total		3,102,243	-310,379	2,791,864	2,648,578	143,286	2,791,864	
Collected				2,791,864				
Uncollected				0				

¹ Decrease. Decreases are due to cancellations of water-right applications and to deferment of charges under the relief acts. 1915. Reclamation Extension Act, Aug. 13, 1914.

² Increase of obligation covers drainage construction under 1921 contract.

³ Increase due to additional obligations assumed under 1926 contract.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Total amount of construction charges deferred under these acts, \$401,232.

NEWTON PROJECT

NEWTON, UTAH

The construction of Newton project in Cache County, Utah, was approved by the President on October 17, 1940, under the terms of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended. A supplemental finding pursuant to the July 16, 1943, amendment to the WCU Act (57 Stat. 566) was approved by the President on August 31, 1943.

The project was developed to furnish an adequate and dependable water supply to 2,200 acres of land. Project features include Newton Dam and Reservoir on Clarkston Creek, to replace an old dam built by the irrigators in 1871, and distribution canals.

The total cost of constructing the project features was \$712,591. The reimbursable portion of this cost, \$350,155, is repayable under the terms of the repayment contract with the Newton Waters Users Association.

The operation and maintenance of the project works was transferred to the Newton Water Users Association on January 1, 1948, at the conclusion of the 2-year development period.

CONTRACT

1941, August 29, and 1945, June 1: Contract No. Ilr-1358 with Newton Water Users Association for construction of Newton Dam and Reservoir. Reimbursable cost, \$350,000, payable in 40 equal annual installments.

The summary of status of repayment contract

Total value of contracted repayment.....	\$350, 000
Total matured charges.....	78, 750
Total matured charges repaid.....	78, 750
Total matured charges unpaid.....	0

The cost and repayment obligations:

Total project cost.....	\$712, 591
Allocation to irrigation:	
Reimbursable.....	350, 155
Nonreimbursable.....	362, 436
Total.....	712, 591

Repayment of reimbursable costs from irrigation water users.....	350, 000
Miscellaneous revenues.....	155
Total.....	350, 155

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1949.....	\$350, 000	\$8, 750		\$8, 750	\$8, 750		\$8, 750	\$8, 750
1950.....	350, 000	8, 750		8, 750	8, 750		8, 750	17, 500
1951.....	350, 000	8, 750		8, 750	8, 750		8, 750	26, 250
1952.....	350, 000	8, 750		8, 750	8, 750		8, 750	35, 000
1953.....	350, 000	8, 750		8, 750	8, 750		8, 750	43, 750
1954.....	350, 000	8, 750		8, 750	8, 750		8, 750	52, 500
1955.....	350, 000	8, 750		8, 750	8, 750		8, 750	61, 250
1956.....	350, 000	8, 750		8, 750	8, 750		8, 750	70, 000
1957.....	350, 000	8, 750		8, 750	8, 750		8, 750	78, 750
Total.....		78, 750		78, 750	78, 750		78, 750	
Collected.....				78, 750				
Uncollected.....				0				

NORTH PLATTE PROJECT

WYOMING—NEBRASKA

The North Platte project is located in southeastern Wyoming and western Nebraska along the North Platte River. Originally called the Sweet-water project, it was authorized by the Secretary of the Interior on March 14, 1903, under the Reclamation Act of 1902 (32 Stat. 388), and later approved by the President on January 5, 1911. Pathfinder Dam and Reservoir were authorized by the Secretary May 3, 1904. The addition of the Fort Laramie unit, which included the Lingle powerplant, was approved August 16, 1912, under the original authorization. Guernsey Dam and powerplant were found feasible by the Secretary April 29, 1925, and approved by the President April 30, 1925, under the terms of the act of December 5, 1924 (43 Stat. 672). Construction began in 1905, and the first irrigation deliveries were made in the season of 1908. Construction of all segments was completed in the midtwenties.

The main features include Pathfinder Dam and Reservoir, Guernsey Dam and Reservoir, Whalen diversion dam, the drainage diversion works, three regulatory reservoirs (Lake Alice, Lake Minatare, and Lake Winters Creek), 4,800-kilowatts at Guernsey powerplant, 1,618 miles of canals and laterals, 373 miles of project drains, and 205 miles of transmission lines. Lingle powerplant of 1,400-kilowatts was placed on a non-operating status May 1, 1956.

The following features constitute the "reserved" works which are operated and maintained by the Bureau: Pathfinder Dam and Reservoir, Guernsey Dam and Reservoir, Whalen diversion dam, the drainage diversion works, the Guernsey powerplant, and the power transmission facilities. The water users, including the Warren Act contractors, advance their appropriate share of the cost of operation and maintenance of the "reserved" works. The remainder of the project works have been operated and maintained by the four project irrigation districts at no cost to the United States since January 1, 1927.

The project was constructed at a cost of \$19,915,823, entirely repayable by the water users. However, the act of July 17, 1952 (Public Law 578), provided for acquisition of the water-users interests in the power revenues to the extent of \$6,636,873, thereby permitting a similar reduction in the remaining amount to be paid. As of June 30, 1957, an additional \$3,427,229 had been accomplished in rehabilitation and betterment work in a program totaling about \$5,660,000. In addition, under this program, the irrigation districts have agreed to perform deferred maintenance work to a generally similar extent with district funds.

The project is composed of four divisions. The Interstate division is composed of the project lands in Wyoming and Nebraska on the north side of the river served by the Interstate Canal. The "transferred" works serving this division are operated and maintained by the Pathfinder irrigation district, which contains about 98 percent of the project land in the division. The Pathfinder irrigation district also acts as fiscal agent for the United States in matters dealing with the unorganized project lands in Wyoming and Nebraska, and with two Warren Act contractors served by the Interstate Canal. The Fort Laramie division is composed of the project lands in Wyoming and Nebraska on the south side of the river served by the Fort Laramie Canal. The portion of this division in Wyoming is represented by the Goshen irrigation district, which operates and maintains the "transferred" works within its boundaries. The portion in Nebraska is represented by the Gering-Fort Laramie irrigation district, which operates and maintains the "transferred" works within its boundaries. The Northport division is located north of the river downstream from the Interstate division. It is composed of the project lands served by the Drainage Diversion Works and the Northport Canal and is represented by the Northport irrigation district, which operates and

maintains the "transferred" works within its boundaries. The Northport irrigation district uses the Farmers' Canal as a carriage facility and shares in its cost of operation and maintenance with the Farmers' irrigation district. The Storage division is composed of the lands of the Warren Act contractors.

The project uses water of the North Platte River to irrigate adjacent lands in Goshen County, Wyo., and in Scotts Bluff, Sioux, and Morrill Counties in Nebraska. Irrigation was started in the Interstate division in 1908, in the Fort Laramie division in 1918, and in the Northport division in 1922. Currently there are 338,670 acres of irrigable land being served by project works, of which 228,878 acres are associated with the 4 irrigation districts representing the project lands and 109,792 acres are represented by 10 districts and canal companies under Warren Act contracts. In addition, from time to time in the past, when stored water supply would permit, project water has been made available to some 34,700 acres in private districts under temporary annual, water-rental arrangements.

INTERSTATE DIVISION

Pathfinder irrigation district.—Of 102,824 acres of irrigable land in the division, 100,556 acres are in the Pathfinder irrigation district in Nebraska. This district, however, acts as agent for the Government in operation and maintenance and fiscal matters involving the remaining project lands, of which 1,878 acres are in unorganized tracts in Wyoming and 393 acres in nondistrict tracts in Nebraska. The Pathfinder district operates and maintains the project works below station No. 2 of the Interstate Canal including the Interstate Canal, laterals, drainage system and excluding the Drainage Diversion Works, Lake Alice, and Lake Minatare.

Repayment contracts.—The Interstate division was the first part of the project constructed and placed under irrigation. Water service was furnished from 1908 to 1927 under individual water-right application and public notice. The Pathfinder irrigation district was organized in 1926. It assumed the obligations of the consenting lands in Nebraska and entered into a contract accordingly to repay its portion of the project construction costs. The contracts with the individual, nonconsenting landowners in Nebraska and the unorganized, individual landowners in Wyoming remain in effect.

Contracts with the nonconsenting landowners in Nebraska total \$98,453. Contracts for acquisition of their interest in the power revenues in accordance with Public Law 578 dated July 17, 1952, have been offered to them but not yet accepted. The Pathfinder irrigation district acts as fiscal agent for the United States.

Contracts with the nondistrict individual landowners in Wyoming total \$159,224. Contracts for acquisition of their interest in the power revenues in accordance with Public Law 578 dated July 17, 1952, have been offered to them but not yet accepted. The Pathfinder irrigation district acts as fiscal agent for the United States.

CONTRACTS

Pathfinder irrigation district

- 1926, July 31: Original repayment contract assumed obligation of individual water-right applications for the "consenting" lands therein. Delinquent charges were funded. Installments were based on 5 percent of the 10-year running average gross crop value. Total contract amount estimated at \$9,048,000.
- 1949, October 19: Rehabilitation and betterment contract Ilr-1560 in the amount of \$32,300, payable in 10 equal annual installments upon contract execution. (Actual obligation of the district for its share of the rehabilitation and betterment of Pathfinder Dam and Reservoir, and to be repaid, is estimated at \$51,400.)
- 1952, September 22 (effective May 31, 1951): Contract Ilr-14-06-W-5 amended the original repayment contract by providing for acquisition of the power interests and fixed annual installments. The district's share of the total project costs designated as \$9,053,763 and the current balance, after allowing \$2,982,353 for the water user interests in power revenues, restated as \$1,200,539, payable in 44 graduated annual installments beginning June 1, 1951.
- 1955, December 7: Contract 14-06-700-935 for rehabilitation and betterment of the Cottonwood Siphon (Interstate Canal) in the amount of \$200,000, payable in five equal annual installments beginning June 30, 1957.

Other contractors

- North Platte Canal and Colonization Co.—Contracts dated September 3, 1907, and December 24, 1914, purchased 54,000 acre-feet of water from the Interstate Canal for \$10,000 in lieu of construction charges.
- Farmers' irrigation district.—Special contract June 16, 1917, for construction of Lower Nine Mile drain in the amount of \$61,851, payable in 10 equal annual installments; also May 31, 1918, a special contract for 25 percent of the construction cost of Wild Horse drain in the amount \$24,927, payable in 10 equal annual installments.

Alliance irrigation district.—Special contract Ilr-478, May 31, 1918, covering drainage construction in the amount of \$2,657, payable in 10 graduated annual installments.

City of Bayard.—Special contract Ilr-478, May 31, 1918, covering drainage construction in the amount of \$24,380, payable in 10 graduated annual installments.

The summary of status of the Interstate division repayment contracts on June 30, 1957:

Total value of contracted repayment.....	\$9, 430, 751
Total matured charges.....	8, 381, 132
Total matured charges repaid.....	8, 380, 026
Total matured charges unpaid.....	1, 106

FORT LARAMIE DIVISION

Goshen irrigation district.—This district contains 52,484 acres of irrigable land in Wyoming south of the North Platte River. The district operates and maintains the project works below station 12 of the Fort Laramie Canal to the State line including the canal, laterals, and drainage system but excluding the Lingle powerplant. The cost of operation and maintenance of the canal and certain laterals serving both districts is shared by the Gering-Fort Laramie district.

CONTRACTS

1926, November 24: Original contract in the estimated amount of \$5,092,991, with payments based on 5 percent of the 10-year running average gross crop value.

1927, July 7: Amendment providing for operation and maintenance of certain project works by the Goshen district.

1949, July 8: Rehabilitation and betterment contract Ilr-1558 for \$3,458,700, to be repaid in 40 annual installments of \$87,000 beginning the year following the last construction installment.

1952, September 22 (effective November 30, 1951): Contract Ilr-14-06-W-4 amended both the original repayment contract and the rehabilitation and betterment contract. The district's share of the total project construction cost designated as \$4,585,812 and the current balance, after allowing \$1,556,699 for the water users interest in power revenues, restated as \$1,421,204, payable in 45 graduated annual installments beginning December 1, 1951. The rehabilitation and betterment program was reduced to \$2,000,000, payable in 71 graduated annual installments beginning December 1, 1984.

The summary of status of the Goshen irrigation district's repayment contracts on June 30, 1957:

Total value of contracted repayment.....	\$6, 585, 812
Total matured charges.....	3, 379, 408
Total matured charges repaid.....	3, 379, 408
Total matured charges unpaid.....	0

Gering-Fort Laramie irrigation district.—This district contains 54,845 acres of irrigable land in Nebraska south of the North Platte River. The district operates and maintains all project works within its boundaries beginning with the Fort Laramie Canal at the State line.

CONTRACTS

1920, May 25: Original contract in the amount of \$5,250,000, payable in 20 equal, annual installments.

1926, November 2: Amendment converting the repayment installments to 5 percent of the 10-year running average gross crop value.

1927, June 7: Amendment providing for operation and maintenance of certain project works by the Gering-Fort Laramie district.

1949, July 5: Rehabilitation and betterment contract Ilr-1559 for \$4,446,600, to be repaid in 40 annual installments of \$112,000 each.

1952, September 22 (effective June 30, 1951): Contract Ilr-14-06-W-6 amended both the original repayment contract and the rehabilitation and betterment contract. The district's share of the total project construction cost designated as \$4,818,334 and the current balance, after allowing \$1,626,734 for the water users interest in power revenues, restated as \$1,097,082, payable in 43 graduated annual installments beginning July 1, 1951. The rehabilitation and betterment program was reduced to \$1,500,000 payable in 63 graduated annual installments beginning July 1, 1974.

The summary of status of the Gering-Fort Laramie irrigation district's repayment contracts on June 30, 1957:

Total value of contracted repayment.....	\$6, 318, 334
Total matured charges.....	3, 980, 953
Total matured charges repaid.....	3, 980, 953
Total matured charges unpaid.....	0

Other contractors

The Union Pacific Railroad Co. signed contracts in 1921, 1924, and 1927 for repayment of construction charges on rights-of-way in the amount of \$60,280. The Holly Sugar Corp. signed contract Ilr-577 April 29, 1929, for repayment of construction charges on a beet-dump site in the amount of \$312. The Great Western Sugar Co. signed contract Ilr-697 on August 1, 1932, for repayment of construction charges on a beet-dump site in the amount of \$100. As of June 30, 1956, these three contractors had paid their obligations in full.

The summary of status of these other contractors' repayment contracts:

Total value of contracted repayment.....	\$60, 692
Total matured charges.....	60, 692
Total matured charges repaid.....	60, 692
Total matured charges unpaid.....	0

NORTHPORT DIVISION

Northport irrigation district.—This district comprises all of the irrigable land in the division. This was the last of the divisions to be constructed. The district's water supply is transported via the Farmers' Canal and much of it is obtained via the Drainage Diversion Works. The district currently contains 16,170 acres of irrigable land, of which 2,555 acres have been tentatively classified as nonirrigable. This district has been in financial difficulties since its organization, causing postponement of certain payments and several amendments of the repayment contract.

CONTRACTS

- 1924, February 24: Original repayment contract in the amount of \$1,050,000 payable in 20 graduated annual installments.
- 1926, November 24: Amendatory contract Ilr-80 increasing the obligation by the penalties, operation and maintenance deficits, and transferred equipment and supplies, also converting installments to 5 percent of the 10-year running average gross crop value.
- 1934, April 1: Amendatory contract providing for 40 graduated installments and crediting power revenues separately, of which \$6,000 annually to Farmers' irrigation district for Northport's share of water transportation costs.
- 1948, August 19: Amendatory contract—reduced installments to \$3,500 on total obligation of \$952,046 beginning June 1, 1949. All or part of the \$3,500 may be applied on Farmers' irrigation district carriage costs if district's share of annual power revenues are insufficient.
- 1949, August 2: Rehabilitation and betterment contract Ilr-1562 in the amount of \$7,950, payable in 10 installments beginning on contract execution and remainder on April 1 each year.

In 1957 a contract was negotiated with the Northport irrigation district for United States acquisition of water user interest in power revenues. The \$479,602 amount of settlement is to be retained by the United States and is to be applied in amounts of not more than \$8,000 per year, commencing with the year 1958, toward payment of the annual cost of carrying the Northport district's water through the Farmers' irrigation district canal. No change made in provisions cited under August 19, 1948, amendatory contract. (See above.) Power settlement contract was approved by act of August 13, 1957 (71 Stat. 342), and is dated March 6, 1958.

The status of the Northport irrigation district's repayment contracts, including rehabilitation and betterment, as of June 30, 1957:

Total value of contracted repayment.....	\$1, 120, 414
Total matured charges.....	196, 221
Total matured charges repaid.....	196, 221
Total matured charges unpaid.....	0

STORAGE DIVISION

The construction costs of the storage facilities in the Storage division are charged in part to the Goshen, Gering-Fort Laramie, Pathfinder, and Northport irrigation districts as a part of their total construction obligations and in part to 10 irrigation districts and canal companies under Warren Act contracts. Final payment of the Warren Act contractors' share of the construction costs amounting to \$895,866 was made November 14, 1949. A small sum remains to be paid on their share of the cost of rehabilitation and betterment work on Pathfinder Dam and Reservoir. Also, these districts continue to advance their share of the annual cost of operating and maintaining the reserved works operated by the Bureau.

CONTRACTS

Beerline Irrigation Canal Co.—March 6, 1913, for purchase of 2,800 acre-feet for \$10,250, payable in 5 install-

Funds advanced to the United States for operation and maintenance of reserved works—Pathfinder irrigation district

Calendar year	Accruals	Collections
1927.....	\$18, 822	\$18, 822
1928.....	15, 552	15, 383
1929.....	10, 710	10, 879
1930.....	8, 987	8, 987
1931.....	8, 800	8, 800
1932.....	5, 941	5, 941
1933.....	4, 860	4, 860
1934.....	8, 870	8, 870
1935.....	7, 050	7, 050
1936.....	7, 200	7, 200
1937.....	7, 000	7, 000
1938.....	7, 500	7, 500
1939.....	10, 500	10, 500
1940.....	8, 500	8, 500
1941.....	6, 600	6, 600
1942.....	7, 900	7, 900
1943.....	6, 900	6, 900
1944.....	9, 500	9, 500
1945.....	7, 840	774
1946.....	14, 870	21, 936
1947.....	19, 000	19, 000
1948.....	20, 000	20, 000
1949.....	12, 700	12, 700
1950.....	22, 920	22, 920
1951.....	43, 170	43, 170
1952.....	29, 120	29, 120
1953.....	30, 300	30, 300
1954.....	33, 840	33, 840
1955.....	33, 250	33, 250
1956.....	35, 390	35, 390
1957.....	29, 270	29, 270
Total.....	492, 862	492, 862

ments. Contract Ilr-479 of July 3, 1918, reduces to 1,639 acre-feet for \$5,040.

Brown's Creek irrigation district.—Contract Ilr-1564 of July 14, 1913, and August 4, 1914, for purchase of 19,900 acre-feet for \$61,900, payable in 10 annual installments. Contracts of April 27, 1927, and November 30, 1914, allow extension of time of payment.

Central irrigation district.—March 6, 1913, and contract Ilr-480 of August 4, 1914, for purchase of 4,050 acre-feet for \$12,275, payable in 10 annual installments.

Chimney Rock Irrigation Canal & Water Power Co.—March 6, 1913, and Contract Ilr-481 of August 6, 1914, and August 30, 1916, for purchase of 10,300 acre-feet for \$32,900, payable in 10 annual installments. Contract of February 27, 1926, allows extension of final payment.

ering irrigation district.—January 17, 1913, and Contract Ilr-482 of August 4, 1914, for purchase of 35,500 acre-feet for \$100,000 payable in 10 annual installments.

ri-State Land Co.—August 20, 1912, and December 6, 1912, for purchase of 180,000 acre-feet for \$500,000, payable in 20 annual installments. By contract of August 10, 1915, company's interest assigned to Farmers' irrigation district. Contract Ilr-215 of

Funds advanced to the United States for operation and maintenance of reserved works—Fort Laramie division

Calendar year	Accruals	Collections
1927-----	\$25, 000	\$25, 000
1928-----	1, 753	1, 753
1929-----	8, 982	8, 982
1930-----	8, 237	8, 237
1931-----	7, 488	7, 488
1932-----	6, 701	6, 701
1933-----	5, 360	5, 360
1934-----	8, 856	8, 856
1935-----	5, 483	5, 483
1936-----	6, 555	6, 555
1937-----	8, 487	8, 487
1938-----	7, 538	7, 538
1939-----	9, 058	9, 058
1940-----	7, 955	7, 955
1941-----	7, 635	7, 635
1942-----	8, 821	8, 821
1943-----	7, 131	7, 131
1944-----	9, 867	9, 867
1945-----	8, 283	8, 283
1946-----	15, 564	15, 564
1947-----	18, 358	18, 358
1948-----	16, 516	16, 516
1949-----	15, 539	15, 539
1950-----	21, 224	21, 224
1951-----	45, 626	45, 626
1952-----	39, 313	39, 313
1953-----	25, 992	25, 992
1954-----	33, 825	33, 825
1955-----	32, 255	32, 255
1956-----	34, 012	34, 012
1957-----	27, 491	27, 491
Total-----	484, 905	484, 905

July 15, 1927, allowed extension of 8 years in time of payment.

Bridgeport irrigation district.—Contract Ilr-483 of June 14, 1915, for purchase of 30,478 acre-feet for \$77,620, payable in 10 annual installments. By act of Congress of August 1, 1942, district's contract canceled and payments forfeited. Contract reduced by \$54,334, leaving a contract amount of \$23,286.

Goshen Land Co.—Contract Ilr-76 of July 1, 1915, for purchase of 29,244 acre-feet for \$94,260, payable in 10 annual installments. Contract of March 9, 1917, assigned rights of company to Lingle Water Users Association. By contract of May 10, 1922, association purchased 3,609 acre-feet additional for \$20,260, payable in 10 annual installments. Contract of September 29, 1926, extended time of payment of 1925 installment over 3 years. Contract of May 15, 1924, for purchase of additional storage right for \$380.

Pleasant Valley Lateral Association.—Contract Ilr-484 of June 6, 1915, and December 18, 1915, for purchase of 13,522 acre-feet for \$35,860, payable in 10 annual installments. Contract of December 15, 1928, assigned rights to Hill irrigation district and allowed extension of time for payment of unpaid and unaccrued balances.

Lincoln Land Co.—Contract Ilr-485 of April 17, 1917, for purchase of 1,941 acre-feet for \$9,705, payable in 10 annual installments.

Funds advanced to the United States for operation and maintenance of reserved works—Northport irrigation district

Calendar year	Accruals	Collections
1927-----	\$2, 340	\$2, 340
1928-----	1, 713	1, 713
1929-----	1, 152	1, 152
1930-----	980	0
1931-----	750	1, 730
1932-----	650	650
1933-----	700	700
1934-----	983	0
1935-----	800	983
1936-----	850	800
1937-----	650	850
1938-----	750	650
1939-----	930	750
1940-----	900	930
1941-----	700	900
1942-----	800	700
1943-----	800	800
1944-----	970	800
1945-----	520	1, 490
1946-----	1, 180	1, 180
1947-----	1, 640	1, 640
1948-----	1, 835	1, 835
1949-----	1, 300	1, 300
1950-----	2, 060	2, 060
1951-----	2, 490	2, 490
1952-----	3, 370	3, 370
1953-----	2, 000	2, 000
1954-----	5, 733	5, 733
1955-----	4, 130	4, 130
1956-----	4, 330	4, 330
1957-----	4, 230	4, 230
Total-----	52, 236	52, 236

In addition to the above contracts, the following payments of interest, penalties, and funded operation and maintenance charges were required: Brown's Creek irrigation district \$2,235, Lingle Water Users Association \$2,244, Hill irrigation district \$6,968, and the Farmers irrigation district \$20,207.

In 1949 the several Warren Act contractors also signed 10-year contracts for repayment of the costs of rehabilitation and betterment of Pathfinder Dam and Reservoir.

Funds advanced to the United States for operation and maintenance of reserved works—Storage division—Warren Act contractors

Fiscal year	Accruals	Collections
1913	\$2, 514	\$2, 217
1914	1, 531	670
1915	3, 943	2, 054
1916	3, 576	835
1917	3, 668	7, 172
1918	6, 487	2, 724
1919	6, 077	11, 021
1920	7, 413	6, 692
1921	3, 707	2, 459
1922	2, 672	3, 095
1923	17, 571	6, 438
1924	9, 800	12, 874
1925	9, 420	13, 633
1926	9, 420	4, 178
1927	7, 065	2, 182
1928	7, 065	17, 444
1929	7, 065	9, 258
1930	7, 065	4, 916
1931	7, 024	9, 377
1932	7, 448	5, 328
1933	4, 778	2, 059
1934	¹ 1, 697	639
1935	5, 404	4, 816
1936	6, 244	3, 531
1937	4, 515	7, 064
1938	7, 361	6, 117
1939	6, 841	5, 260
1940	6, 795	6, 736
1941	5, 826	6, 411
1942	6, 171	5, 711
1943	¹ 3, 810	5, 976
1944	7, 489	7, 444
1945	7, 088	7, 154
1946	10, 483	10, 468
1947	11, 496	11, 077
1948	12, 102	12, 587
1949	10, 485	10, 485
1950	8, 428	8, 368
1951	16, 629	16, 589
1952	23, 669	23, 604
1953	16, 525	16, 052
1954	23, 232	22, 721
1955	21, 760	21, 398
1956	21, 389	21, 385
1957	22, 152	22, 807
Total	391, 886	391, 026

¹ Decrease.

The total of the Warren Act contractors' share of these costs is \$84,977.

The summary of status of the Storage division construction and rehabilitation and betterment repayment contracts:

Total value of contracted repayment	\$1, 019, 500
Total matured charges	991, 558
Total matured charges repaid	990, 894
Total matured charges unpaid	664

Operation and maintenance assessments history—Interstate division

Fiscal year	Accruals	Collections
1909	\$15, 182	\$10, 422
1910	¹ 1, 674	3, 690
1911	85, 153	13, 255
1912	45, 837	56, 290
1913	116, 169	81, 112
1914	78, 174	95, 929
1915	¹ 59, 616	16, 501
1916	73, 383	56, 667
1917	112, 210	101, 054
1918	130, 981	114, 496
1919	192, 455	172, 733
1920	242, 593	239, 179
1921	300, 845	152, 269
1922	201, 698	87, 663
1923	185, 912	94, 883
1924	156, 276	42, 547
1925	119, 716	54, 983
1926	198, 655	30, 397
1927	¹ 703, 531	8, 356
1928	858	13, 844
1929	¹ 44, 964	¹ 7, 122
1930	¹ 69	0
1931	¹ 1, 715	4, 401
1932	0	0
1933	¹ 961	18
Total	1, 443, 567	1, 443, 567

NOTE.—Does not include \$100,483 funds advanced by Farmers' irrigation district for operation and maintenance of the district's irrigation system in 1925 and 1926.

¹ Decrease.

Operation and maintenance assessments history—Northport division

Fiscal year	Accruals	Collections
1924	\$22, 748	
1925	22, 922	\$22, 748
1926	22, 985	23, 381
1927	¹ 22, 236	290
Total	46, 419	46, 419

NOTE.—Operation and maintenance of Northport division assumed by Northport irrigation district in 1927.

¹ Decrease.

Construction repayment history—Interstate division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1909		\$72,062		\$72,062	\$5,008		\$5,008	\$5,008
1910		107,355		107,355	65,929		65,929	70,937
1911		330,656		330,656	3,723	\$24,099	27,822	98,759
1912		76,803	¹ \$462,283	¹ 385,480	44,928	¹ 69,575	¹ 24,647	74,112
1913		133,381	¹ 34,575	98,806	47,756	¹ 3,263	44,493	118,605
1914		291,192	¹ 66,249	224,943	20,912	¹ 5,454	15,458	134,063
1915		168,447	¹ 211,373	¹ 42,926	47,741	4,738	52,479	186,542
1916		95,819	¹ 180,735	¹ 84,916	77,982	30,100	108,082	294,624
1917	\$5,288,875			101,512			103,293	397,917
1918	5,803,792			104,573			98,069	495,986
1919	5,863,631			178,813			153,849	649,835
1920	5,902,712			180,619			184,264	834,099
1921	6,007,162	2,461,581		274,914	1,072,650		191,489	1,025,588
1922	² 7,794,439			297,091			105,956	1,131,544
1923	7,827,930			313,250			98,691	1,230,235
1924	7,836,666			327,492			27,743	1,257,978
1925	7,911,999			256,559			18,237	1,276,215
1926	8,047,363			426,758			91,059	1,367,274
1927	8,047,363	164,847	¹ 1,348,634	¹ 183,787	72,638	815	73,453	1,440,727
1928	³ 9,664,123	161,039	¹ 29,505	131,534	70,393	61,233	131,626	1,572,353
1929	9,582,769	149,180	¹ 89,112	60,068	54,965	49,225	104,190	1,676,543
1930	9,519,759	140,655	¹ 7,234	133,421	58,055	80,618	138,673	1,815,216
1931	9,526,358	136,727	¹ 5,266	131,461	135,526	99,476	235,002	2,050,218
1932	9,534,444	⁴ 83,543	¹ 227	83,316	82,628	406	83,034	2,133,252
1933	9,545,154	⁴ 122,468	37,994	160,462	122,057	42,281	164,338	2,297,590
1934	9,468,662	⁴ 99,392		99,392	97,091	2,705	99,796	2,397,386
1935	9,471,946	⁴ 79,406		79,406	78,809	878	79,687	2,477,073
1936	9,470,669	⁴ 59,176		59,176	58,209	480	58,689	2,535,762
1937	9,480,170	112,609		112,609	90,188	1,171	91,359	2,627,121
1938	9,480,618	118,670		118,670	96,336	22,211	118,547	2,745,668
1939	9,478,793	116,314		116,314	114,988	22,533	137,521	2,883,189
1940	9,478,793	113,079		113,079	111,925	1,328	113,253	2,996,442
1941	9,478,793	112,432		112,432	107,807	1,154	108,961	3,105,403
1942	9,478,793	107,441		107,441	100,996	4,624	105,620	3,211,023
1943	9,481,624	112,621		112,621	112,023	5,786	117,809	3,328,832
1944	9,481,624	119,479		119,479	115,231	864	116,095	3,444,927
1945	9,482,099	135,973		135,973	121,018	4,248	125,266	3,570,193
1946	9,490,793	150,179		150,179	104,660	16,163	120,823	3,691,016
1947	9,648,584	166,496		166,496	111,544	44,351	155,895	3,846,911
1948	9,648,584	1,024		1,024	1,004	54,912	55,916	3,902,827
1949	9,648,584	185,074		185,074	185,052	4	185,056	4,087,883
1950	9,476,326	412,754		412,754	310,409	22	310,431	4,398,314
1951	9,476,326	223,731		223,731	75,922	102,359	178,281	4,576,595
1952	9,476,326	1,023		1,023	982	76,739	77,721	4,654,316
1953	8,718,928	49,896	2,867,146	2,917,042	49,937	⁵ 2,938,218	2,988,155	7,642,471
1954	8,718,928	3,196		3,196	2,651		2,651	7,645,122
1955	8,733,222	181,298	⁶ 102,638	78,660	180,914	⁶ 102,638	78,276	7,723,398
1956	8,731,865	44,398	⁷ 5,561	38,837	44,578	⁷ 5,561	39,017	7,762,415
1957	8,731,865	43,627		43,627	43,015	255	43,270	7,805,685
Total		7,445,043	361,748	7,806,791	4,298,180	3,507,505	7,805,685	
Collected				7,805,685				
Uncollected				1,106				

¹ Decrease. Decreases are due to cancellations of water-right applications, funding of delinquent charges, and deferments under relief acts. 1912—Adjustment under 1911 public notice; 1915—Reclamation Extension Act. Aug. 13, 1914; 1926—adjustment under 1926 contract.

² Decrease in obligation due to opening of additional lands to homestead entry.

³ Increase in obligation due to funding of delinquent charges under 1926 contract.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934,

June 13, 1935, and Apr. 14, 1936. Total amount of construction charges deferred for years 1931-36, \$169,555.

⁵ Adjustments of accruals and collections due to acquisition of the power system by the United States.

⁶ Decrease. Additional adjustments in accordance with amendatory contracts covering credits given as a result of acquisition of the power system by the United States.

⁷ Decrease. Adjustments of accruals for nondistrict and nonconsenting lands due to power system acquisition.

RECLAMATION REPAYMENTS

Construction repayment history—Fort Laramie division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative Total
1921	\$30, 561	\$30, 561		\$30, 561	\$30, 561		\$30, 561	\$30, 561
1922	34, 124	3, 563		3, 563	3, 563		3, 563	34, 124
1923	34, 124							34, 124
1924	39, 271	5, 147		5, 147	5, 147		5, 147	39, 271
1925	5, 288, 973	¹ 298		¹ 298	¹ 298		¹ 298	38, 973
1926	5, 288, 973			0			0	38, 973
1927 ²	5, 288, 973	184, 189		184, 189	184, 189		184, 189	223, 162
1928 ³	10, 541, 707	3, 797		3, 797	3, 797		3, 797	226, 959
1929	10, 541, 707	193		193	193		193	227, 152
1930 ²	10, 542, 019	30, 345	² \$126, 696	² 96, 351	30, 345	² \$126, 696	² 96, 351	130, 801
1931	10, 542, 019	⁴ 65, 046		65, 046	65, 046		65, 046	195, 847
1932	10, 542, 019	⁴ 185, 030		185, 030	185, 030		185, 030	380, 877
1933	10, 542, 432	⁴ 171, 756		171, 756	171, 756		171, 756	552, 633
1934	10, 544, 278	⁴ 75, 682		75, 682	75, 682		75, 682	628, 315
1935	10, 544, 278	⁴ 46, 806		46, 806	46, 806		46, 806	675, 121
1936	10, 542, 413	⁴ 60, 262		60, 262	60, 262		60, 262	735, 383
1937	10, 542, 413	42, 064		42, 064	42, 064		42, 064	777, 447
1938	10, 542, 413	108, 535		108, 535	108, 535		108, 535	885, 982
1939	10, 542, 413	160, 802		160, 802	160, 802		160, 802	1, 046, 784
1940	10, 542, 413	164, 625		164, 625	164, 625		164, 625	1, 211, 409
1941	10, 542, 413	163, 908		163, 908	163, 908		163, 908	1, 375, 317
1942	10, 542, 413	162, 548		162, 548	162, 548		162, 548	1, 537, 865
1943	10, 542, 413	216, 351		216, 351	216, 351		216, 351	1, 754, 216
1944	10, 542, 413	167, 050		167, 050	167, 050		167, 050	1, 921, 266
1945	10, 542, 413	177, 546		177, 546	177, 546		177, 546	2, 098, 812
1946	10, 542, 413	189, 821		189, 821	189, 821		189, 821	2, 288, 633
1947	10, 542, 413	206, 532		206, 532	206, 532		206, 532	2, 495, 165
1948	10, 542, 413	222, 406		222, 406	222, 406		222, 406	2, 717, 571
1949	10, 542, 413	241, 087		241, 087	241, 087		241, 087	2, 958, 658
1950	10, 542, 413	265, 204		265, 204	265, 204		265, 204	3, 223, 862
1951	10, 542, 413	276, 869		276, 869	276, 869		276, 869	3, 500, 731
1952	10, 542, 413	291, 165		291, 165	277, 472		277, 472	3, 778, 203
1953	9, 464, 838	72, 900	⁵ 3, 636, 098	3, 708, 998	72, 900	⁵ 3, 649, 791	3, 722, 691	7, 500, 894
1954	9, 464, 838							7, 500, 894
1955	9, 464, 838	145, 800	⁶ 371, 442	—225, 642	145, 800	⁶ 371, 442	—225, 642	7, 275, 252
1956	9, 464, 838	72, 900		72, 900	72, 900		72, 900	7, 348, 152
1957	9, 464, 838	72, 900		72, 900	72, 900		72, 900	7, 421, 052
Total		4, 283, 092	3, 137, 960	7, 421, 052	4, 269, 399	3, 151, 653	7, 421, 052	
Collected				7, 421, 052				
Uncollected				0				

¹ Decrease. Decreases cover adjustment of allowance.² Unification credits. Credit for private irrigation works taken over and made part of the project.³ Goshen irrigation district became part of project.⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for 1931, \$5,400; 1932, \$50,702; 1933, \$72,013; 1934, \$99,199; 1935, \$96,202; 1936, \$3,189.⁵ Adjustment of accruals and collections to reflect acquisition credit of the power system.⁶ Decrease. Additional adjustments necessary as a result of acquisition of the power system by the United States.

Construction repayment history—Northport irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1925	\$1, 050, 000	\$21, 000		\$21, 000				
1926	1, 050, 000	21, 000		21, 000				
1927	1, 050, 000		¹ \$42, 000	¹ 42, 000				
1928	1, 112, 695	4, 228		4, 228	\$4, 228		\$4, 228	\$4, 228
1929	1, 112, 695	8, 396		8, 396	8, 396		8, 396	12, 624
1930	1, 112, 695	² 12, 997		12, 997	12, 997		12, 985	25, 609
1931	1, 112, 405	² 12, 997		12, 997	12, 997	\$12	13, 009	38, 618
1932	1, 112, 441	² 16, 665		16, 665	16, 665		16, 665	55, 283
1933	1, 112, 410	² 16, 203	¹ 7, 150	9, 053	9, 053		9, 053	64, 336
1934	1, 112, 464	10, 985		10, 985	10, 985		10, 985	75, 321
1935	1, 112, 464	14, 071	¹ 9, 705	4, 366	4, 368		4, 368	79, 689
1936	1, 112, 464	1, 714		1, 714	1, 714		1, 714	81, 403
1937	1, 112, 464			0			0	81, 403
1938	1, 112, 464	13, 380		13, 380	13, 380		13, 380	94, 783
1939	1, 112, 464	³ 9, 223		9, 223	9, 223		9, 223	104, 006
1940	1, 112, 464	(³)		0			0	104, 006
1941	1, 112, 464	³ 15, 095		15, 095	7, 595		7, 595	111, 601
1942	1, 112, 464	³ 16, 494		16, 494	6, 492		6, 492	118, 093
1943	1, 112, 464	³ 19, 402	¹ 16, 160	3, 242	8, 121		8, 121	126, 214
1944	1, 112, 464	³ 21, 765	¹ 12, 500	9, 265	6, 765		6, 765	132, 979
1945	1, 112, 464	³ 30, 223		30, 223	5, 223		5, 223	138, 202
1946	1, 112, 464	32, 964	¹ 15, 000	17, 964	7, 964		7, 964	146, 166
1947	1, 112, 464	33, 003	¹ 25, 000	8, 003	8, 003		8, 003	154, 169
1948	1, 112, 464	9, 675	¹ 25, 000	¹ 15, 325	7, 075		7, 075	161, 244
1949	1, 112, 464	5, 685		5, 685	8, 285		8, 285	169, 529
1950	1, 112, 464	29	⁴ 25, 121	-25, 092	29		29	169, 558
1951	1, 112, 464	5, 723		5, 723	5, 723		5, 723	175, 281
1952	1, 112, 464	0		0	0		0	175, 281
1953	971, 058							175, 281
1954	1, 112, 464							175, 281
1955	1, 112, 464							175, 281
1956	1, 112, 464	13, 786		13, 786	13, 786		13, 786	189, 067
1957	1, 112, 464							189, 067
Total		366, 703	-177, 636	189, 067	189, 055	12	189, 067	
Collected				189, 067				
Uncollected				0				

¹ Decrease. Deferments under relief acts. 1927—Adjustments under 1926 contract.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and April 14, 1936.

³ Relief under Act of Aug. 4, 1939. Construction charges deferred for calendar years 1939, \$5,000; 1940, \$7,500; 1941, \$8,660; 1942, \$12,500; 1943, \$15,000; 1944, \$25,000; 1945, \$25,000.

⁴ Decrease. Amended contract Aug. 19, 1948, changing repayment terms.

Construction repayment history—Storage division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1913	\$632, 900	\$38, 290		\$38, 290	\$38, 290		\$38, 290	\$38, 290
1914	717, 325	6, 372		6, 372	1, 227		1, 227	39, 517
1915	717, 325	12, 404		12, 404	5, 614	\$3, 095	8, 709	48, 226
1916	925, 065	39, 822		39, 822	7, 000		7, 000	55, 226
1917	925, 065	40, 575		40, 575	21, 650	27, 861	49, 511	104, 737
1918	934, 770	61, 136		61, 136	21, 041	9, 686	30, 727	135, 464
1919	929, 560	51, 540	¹ \$5, 210	46, 330	28, 488	29, 129	57, 617	193, 081
1920	929, 560	71, 321		71, 321	30, 024	29, 714	59, 738	252, 819
1921	929, 560	81, 306		81, 306	10, 971	32, 263	43, 234	296, 053
1922	929, 560	46, 811		46, 811	5, 508	64, 877	70, 385	366, 438
1923	949, 820	75, 037		75, 037	4, 115	34, 172	38, 287	404, 725
1924	950, 200	64, 303		64, 303	2, 037	23, 973	26, 010	430, 735
1925	950, 200	64, 445		64, 445	1, 504	29, 476	30, 980	461, 715
1926	950, 200	31, 366		31, 366	3, 967	24, 460	28, 427	490, 142
1927	951, 855	30, 526	¹ 19, 865	10, 661	2, 026	33, 306	35, 332	525, 474
1928	1, 014, 555	39, 111	¹ 97, 376	¹ 58, 265	37, 873	5, 393	43, 266	568, 740
1929	1, 014, 555	40, 123		40, 123	38, 715	1, 238	39, 953	608, 693
1930	1, 014, 555	40, 124		40, 124	35, 476	1, 408	36, 884	645, 577
1931	1, 020, 403	37, 563	¹ 7, 602	29, 961	33, 511	1, 324	34, 835	680, 412
1932	1, 020, 403	² 2, 811		2, 811	2, 811	761	3, 572	683, 984
1933	1, 021, 347	² 16, 471	¹ 7, 376	9, 095	15, 696		15, 696	699, 680
1934	1, 025, 948	² 3, 017	¹ 15, 060	¹ 12, 043	1, 660	¹ 14, 236	¹ 12, 576	687, 104
1935	1, 028, 909	² 3, 111		3, 111	1, 134		1, 134	688, 238
1936	1, 026, 655	² 5, 936		5, 936	3, 419	1, 105	4, 524	692, 762
1937	1, 026, 655	² 11, 873		11, 873	9, 916	1, 358	11, 274	704, 036
1938	1, 026, 655	20, 650		20, 650	20, 650	1, 575	22, 225	726, 261
1939	1, 026, 655	23, 180		23, 180	23, 180	49	23, 229	749, 490
1940	1, 026, 655	21, 438		21, 438	21, 438		21, 438	770, 928
1941	1, 026, 655	18, 577	¹ 2, 911	15, 666	18, 576		18, 576	789, 504
1942	1, 026, 655	19, 899		19, 899	18, 489		18, 489	807, 993
1943	972, 320	22, 018	¹ 54, 334	¹ 32, 316	20, 607		20, 607	828, 600
1944	972, 320	23, 719		23, 719	23, 719	437	24, 156	852, 756
1945	972, 320	29, 750		29, 750	29, 750	423	30, 173	882, 929
1946	972, 320	29, 751		29, 751	28, 542	552	29, 094	912, 023
1947	972, 320	28, 896		28, 896	12, 232	2, 424	14, 656	926, 679
1948	972, 320					196	196	926, 875
1949	972, 320							926, 875
1950	¹ 927, 029		¹ 16, 509	¹ 16, 509		154	154	927, 029
Total		1, 153, 272	¹ 226, 243	927, 029	580, 856	346, 173	927, 029	
Collected				927, 029				
Uncollected				0				

NOTE.—Exclusive of storage costs repayable by Pathfinder, Goshen, Northport, and Gering-Fort Laramie irrigation districts.

¹ Decrease. 1919—Beerline contract reduced; 1927—Lingle 1925 installment deferred; 1928—Deferments Farmers and Brown Creek; 1941—Deferment Brown Creek; 1943—Bridgeport cancellation of contract and debt,

act of Aug. 1, 1942; 1947—Act of Congress of May 19, 1947 (Public Law 73), relieving Farmers Irrigation district of \$59,853 in accrued interest.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Total amount of construction charges deferred for years 1931-36, \$169,089.

Rehabilitation and betterment repayment history—Interstate division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950	\$32, 300	\$6, 460	-----	\$6, 460	\$6, 460	-----	\$6, 460	\$6, 460
1951	32, 300	3, 230	-----	3, 230	3, 230	-----	3, 230	9, 690
1952	32, 300	3, 230	-----	3, 230	3, 230	-----	3, 230	12, 920
1953	¹ 51, 400	3, 230	-----	3, 230	3, 230	-----	3, 230	16, 150
1954	51, 400	3, 230	-----	3, 230	3, 230	-----	3, 230	19, 380
1955	51, 400	3, 230	-----	3, 230	3, 230	-----	3, 230	22, 610
1956	² 251, 400	3, 230	-----	3, 230	3, 230	-----	3, 230	25, 840
1957	³ 179, 169	28, 784	-----	28, 784	28, 784	-----	28, 784	54, 624
Total	-----	54, 624	-----	54, 624	54, 624	-----	54, 624	-----
Collected	-----	-----	-----	54, 624	-----	-----	-----	-----
Uncollected	-----	-----	-----	0	-----	-----	-----	-----

¹ Increase in contract value by amendatory contract.² Contract in the amount of \$200,000 executed to repay costs incurred in construction of Cottonwood Siphon on Interstate Canal.³ Actual construction costs were \$127,769, which resulted in a contract reduction of \$72,231.*Rehabilitation and betterment repayment history—Northport irrigation district*

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950	\$7, 950	\$1, 590	-----	\$1, 590	\$1, 590	-----	\$1, 590	\$1, 590
1951	7, 950	795	-----	795	795	-----	795	2, 385
1952	7, 950	795	-----	795	795	-----	795	3, 180
1953	7, 950	795	-----	795	795	-----	795	3, 975
1954	7, 950	795	-----	795	795	-----	795	4, 770
1955	7, 950	795	-----	795	795	-----	795	5, 565
1956	7, 950	795	-----	795	795	-----	795	6, 360
1957	7, 950	795	-----	795	795	-----	795	7, 155
Total	-----	7, 155	-----	7, 155	7, 155	-----	7, 155	-----
Collected	-----	-----	-----	7, 155	-----	-----	-----	-----
Uncollected	-----	-----	-----	0	-----	-----	-----	-----

Rehabilitation and betterment repayment history—Storage division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950	\$60, 501	\$15, 928	-----	\$15, 928	\$8, 492	-----	\$8, 492	\$8, 492
1951	60, 501	8, 250	-----	8, 250	3, 125	\$10, 360	13, 485	21, 977
1952	61, 220	5, 369	-----	5, 369	3, 305	2, 711	6, 016	27, 993
1953	94, 636	8, 466	-----	8, 466	8, 816	-----	8, 816	36, 809
1954	94, 636	6, 982	-----	6, 982	6, 555	-----	6, 555	43, 364
1955	94, 636	6, 981	-----	6, 981	7, 439	-----	7, 439	50, 803
1956	92, 471	6, 671	-----	6, 671	6, 887	-----	6, 887	57, 690
1957	92, 471	5, 883	-----	5, 883	5, 883	293	6, 176	63, 866
Total	-----	64, 530	-----	64, 530	50, 502	13, 364	63, 866	-----
Collected	-----	-----	-----	63, 866	-----	-----	-----	-----
Uncollected	-----	-----	-----	664	-----	-----	-----	-----

The allocation and repayment of costs, North Platte project, June 30, 1957:

Item	Total	Irrigation				Electric	Other
		Interstate division	Fort Laramie division	Northport division	Storage division		
Costs:							
Completed divisions	\$20, 703, 003	\$7, 706, 845	\$8, 877, 989	\$991, 127	\$911, 049	\$2, 215, 993	-----
Completed rehabilitation and betterment	3, 255, 175	50, 646	3, 104, 093	7, 965	92, 471	-----	-----
	23, 958, 178	7, 757, 491	11, 982, 082	999, 092	1, 003, 520	2, 215, 993	-----
Construction work in progress:							
Rehabilitation and betterment	172, 054	-----	172, 054	-----	-----	-----	-----
Operation and maintenance construction	4, 308	-----	-----	-----	-----	4, 308	-----
Total	176, 362	-----	172, 054	-----	-----	4, 308	-----
Subtotal, cost to June 30, 1957	24, 134, 540	7, 757, 491	12, 154, 136	999, 092	1, 003, 520	2, 220, 301	-----
Scheduled rehabilitation and bet- terment	2, 232, 771	-----	2, 232, 771	-----	-----	-----	-----
Total, estimated cost	26, 367, 311	7, 757, 491	14, 386, 907	999, 092	1, 003, 520	2, 220, 301	-----
Allocation:							
Irrigation—regular	17, 872, 020	-----	-----	-----	-----	-----	-----
Rehabilitation and betterment	5, 660, 000	-----	-----	-----	-----	-----	-----
Power	2, 220, 223	-----	-----	-----	-----	-----	-----
Nonreimbursable—irrigation	615, 068	-----	-----	-----	-----	-----	-----
	26, 367, 311	-----	-----	-----	-----	-----	-----
Other charges:							
Nonreimbursable expenses	5, 236	-----	-----	-----	-----	-----	\$5, 236
Investments	6, 232, 285	-----	-----	-----	-----	6, 232, 285	-----
Retirement work in progress	3, 636	1, 652	1, 724	260	-----	-----	-----
Funded charges	1, 389, 650	1, 302, 473	13, 125	58, 769	15, 283	-----	-----
Total, other charges	7, 630, 807	1, 304, 125	14, 849	59, 029	15, 283	6, 232, 285	5, 236
Cost deductions:							
Reserve for repayment reduc- tions authorized	615, 068	615, 068	-----	-----	-----	-----	-----
Contributions	132, 046	42, 772	69, 222	7, 475	12, 564	13	-----
Nonreimbursable deductions	5, 236	-----	-----	-----	-----	-----	5, 236
Depreciation of movable equip- ment	16, 757	1, 562	1, 628	245	2, 619	10, 703	-----
Total, cost deductions	769, 107	659, 402	70, 850	7, 720	15, 183	10, 716	5, 236
Power allocation to divisions	-----	771, 393	805, 243	141, 763	-----	(1, 718, 399)	-----
Total net costs	33, 229, 011	9, 173, 607	15, 136, 149	1, 192, 164	1, 003, 620	6, 723, 471	-----
Repayment:							
Repayment realized:							
Water users equity	39, 616	-----	-----	39, 616	-----	-----	-----
Repayment contracts ma- tured	16, 470, 247	7, 877, 295	7, 421, 052	196, 222	975, 678	-----	-----
Excess of income over expense	1, 362, 065	258, 725	306, 855	27, 824	-----	768, 661	-----
Total repayment realized	17, 871, 928	8, 136, 020	7, 727, 907	263, 662	975, 678	768, 661	-----
Anticipated future repayment:							
Repayment contracts unma- tured	7, 545, 539	1, 049, 619	5, 543, 786	924, 192	27, 942	-----	-----
Future repayment contracts	1, 880, 410	-----	1, 880, 410	-----	-----	-----	-----
Net power revenues	5, 427, 225	-----	-----	-----	-----	5, 427, 225	-----
Miscellaneous	100, 000	45, 431	47, 424	7, 145	-----	-----	-----
Total anticipated future re- payment	14, 953, 174	1, 095, 050	7, 471, 620	931, 337	27, 942	5, 427, 225	-----
Total repayment	32, 825, 102	9, 231, 070	15, 199, 527	1, 194, 999	1, 003, 620	6, 195, 886	-----
Net total, excess of costs over repayments	403, 909	(57, 463)	(63, 378)	(2, 835)	0	527, 585	-----

OCHOCO PROJECT

PRINEVILLE, OREG.

The Ochoco irrigation district constructed the Ochoco Dam, completing it in 1920. Funds were provided by the 80th Congress in the Interior Department Appropriation Act of 1949 (act of June 29, 1948, 62 Stat. 112) to commence rehabilitation of the dam. Originally considered a division of the Deschutes project, it has been established as the Ochoco project.

The primary purpose of the project was to provide emergency rehabilitation of Ochoco Dam in order to make it safe from sudden failure. It is an earth-fill dam 125 feet high and the reservoir has a capacity of 47,500 acre-feet. The dam was built immediately after World War I as a part of a veterans' farm-settlement program undertaken by the State of Oregon. The original plan for the Ochoco project was to furnish irrigation water for 22,500 acres of land; however, the water supply proved to be inadequate and the area was reduced to 14,000 acres. In 1935 the irrigable area was further reduced to 8,500 acres. Reconstruction of Ochoco Dam began in 1949. The major construction work which was performed by contract was completed in March 1950. The remedial work on the right abutment leak was completed as of June 30, 1952.

The actual cost for construction is \$846,271. The entire amount, with the exception of \$346,271 allocated to flood control, will be repayable by

the district under the terms of the repayment contract. All physical construction has been completed.

The Ochoco irrigation district operates the project works.

Repayment contract.—The water users of the Ochoco irrigation district have executed a repayment contract with the United States for \$500,000 reimbursable costs, with annual installments of \$12,750, beginning after liquidation of the district's outstanding bonded indebtedness (\$243,500) but not later than 1968. The \$12,750 annual installment is to be varied in accordance with the normal and percentage plan of the Reclamation Project Act of 1939. If repayment begins in 1968, it will be completed in 2007.

CONTRACTS

1950, April 24: Contract Ilr-1569 with Ochoco irrigation district to repay \$500,000 of total cost.

The cost and repayment allocation:

Total project cost.....	\$846, 271
Allocation of costs:	
Reimbursable costs: Irrigation.....	500, 000
Nonreimbursable costs: Flood control ¹	346, 271
Total.....	846, 271

¹ Pursuant to allocation of costs under secs. 7 and 9 of the Reclamation Project Act of 1939 as authorized by the Interior Department Appropriation Act of 1949.

OGDEN RIVER PROJECT

OGDEN, UTAH

The construction of the Ogden River project in Weber and Box Elder Counties, Utah, was initiated on August 24, 1933, under the provisions of the National Industrial Recovery Act of 1933.

Project construction was approved by the President on November 16, 1935, under the terms of subsection B, section 4, act of December 5, 1924 (43 Stat. 701).

The project was developed to furnish a full water supply to approximately 4,500 acres and a supplemental supply to about 18,500 acres of land. Project features include the Pine View Dam and Reservoir, reconstructed Ogden Canyon conduit, Ogden-Brigham canal, and the South Ogden highline canal, and also the South Ogden distribution high-pressure system constructed for the South Ogden conservation district.

The total actual cost of constructing the project features was \$5,000,984. The entire amount, together with operation and maintenance funded, less contributions and revenues, is repayable under the terms of repayment contracts with the Ogden River Water Users' Association and the South Ogden conservation district.

The cost and repayment allocations:

Total project cost.....	\$5,000,984
Allocation of reimbursable costs: Irrigation..	5,000,984
<hr/>	
Repayment of reimbursable costs:	
For irrigation plant investment.....	5,000,984
Operation and maintenance funded.....	11,389
Less:	
Nonreimbursable CCC costs.....	-278,000
Contributions.....	-12,667
Revenues.....	-220
<hr/>	
Total repayment obligation.....	4,721,486
<hr/>	

By municipal water users.....	\$35,000
By power water users.....	261,115
By irrigation water users.....	4,438,820
Adjustment pending.....	-13,449
<hr/>	
Total.....	4,721,486

Operation and maintenance of the project, except the South Ogden distribution system, was transferred to the Ogden River Water Users' Association on August 1, 1937. The South Ogden distribution system is operated and maintained by the South Ogden conservation district.

Repayment contracts.—The original Ogden River Water Users' Association repayment contract was signed May 31, 1934, and the original South Ogden conservation district contract was signed May 13, 1940. The Ogden River Water Users' Association amendatory contract, signed on May 23, 1950, provides for the full repayment of the association's obligation in 62 years including the 1950 payment:

CONTRACTS AND PUBLIC NOTICES

- 1934, May 31; 1935, November 30; 1936, November 27: Contract Ilr-761 with Ogden River Water Users' Association for construction of Pine View Reservoir. Estimated cost, \$4,200,000, payable in 40 equal annual installments.
- 1934, August 20: Contract Ilr-976 with city of Ogden for municipal water supply. Cost, \$35,000, payable in 10 equal annual installments (paid in full).
- 1934, October 18: Contract with Utah Power & Light Co. for construction of wood-stave pipeline. Cost, \$261,115, payable in 20 equal annual installments (paid in full).
- 1940, May 13: Contract Ilr-1224 with South Ogden conservation district for construction of distribution system. Estimated cost, \$345,000, payable in 39 equal annual installments.

1948, April 7: Letter notice to South Ogden conservation district that total construction cost under contract dated May 13, 1940, was determined to be \$321,666.41.

1948, August 23: Contract with South Ogden conservation district for additional construction of South Ogden distribution system. Cost, \$272,062, payable in 40 equal annual installments.

1950, May 23: Amendatory contract with Ogden River Water Users' Association for its unpaid construction

obligation of \$3,403,500, payable in 62 annual installments with optional price index variable repayment plan.

The summary of status of repayment contracts:

Total value of contracted repayment.....	¹ \$4, 734, 935
Total matured charges.....	1, 344, 814
Total matured charges repaid.....	1, 344, 814
Total matured charges unpaid.....	0

¹ To be adjusted to actual obligation of \$4,733,786.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1935.....	\$2, 935, 000							
1936.....	3, 535, 000							
1937.....	4, 496, 115							
1938.....	4, 496, 115							
1939.....	4, 496, 115							
1940.....	4, 841, 115							
1941.....	4, 841, 115							
1942.....	4, 841, 115							
1943.....	4, 841, 115	\$91, 821		\$91, 821	\$16, 556		\$16, 556	\$16, 556
1944.....	4, 841, 115	119, 821		119, 821	44, 555		44, 555	61, 111
1945.....	¹ 4, 404, 380	97, 168	² \$150, 531	² 53, 363	97, 168		97, 168	158, 279
1946.....	4, 404, 380	97, 167		97, 167	97, 167		97, 167	255, 446
1947.....	4, 404, 380	293, 003		293, 003	293, 003		293, 003	548, 449
1948.....	4, 381, 046	84, 111		84, 111	84, 111		84, 111	632, 560
1949.....	4, 381, 046	83, 445		83, 445	63, 499		63, 499	696, 059
1950.....	4, 659, 046	83, 445		83, 445	73, 445	\$19, 946	93, 391	789, 450
1951.....	4, 740, 873	74, 479	² 10, 000	64, 479	74, 479		74, 479	863, 929
1952.....	4, 734, 935	74, 479		74, 479	74, 479		74, 479	938, 408
1953.....	4, 734, 935	81, 281		81, 281	81, 281		81, 281	1, 019, 689
1954.....	4, 734, 935	81, 281		81, 281	81, 281		81, 281	1, 100, 970
1955.....	4, 734, 935	81, 281		81, 281	81, 281		81, 281	1, 182, 251
1956.....	4, 734, 935	81, 281		81, 281	81, 281		81, 281	1, 263, 532
1957.....	4, 734, 935	81, 282		81, 282	81, 282		81, 282	1, 344, 814
Total.....		1, 505, 345	-160, 531	1, 344, 814	1, 324, 868	19, 946	1, 344, 814	
Collected.....				1, 344, 814				
Uncollected.....				0				

¹ Decrease in obligation represents adjustment to actual work.

² Decrease. Decrease covers amounts deferred under 1939 act. Ogden

River Water Users' Association construction charges deferred under act of Aug. 4, 1939, calendar years 1942, \$75,266; 1943, \$75,265.

OKANOGAN PROJECT

OKANOGAN, WASH.

The construction of Okanogan project in Okanogan County, Wash., was authorized by the Secretary of the Interior on December 2, 1905, under authority of the Reclamation Project Act of 1902. (32 Stat. 388.)

The project was developed to provide irrigation water for land, devoted principally to apple production, on the west side of Okanogan River. Project facilities include Conconully Dam and Reservoir and Salmon Lake Dam and Reservoir, a diversion dam in Salmon Creek, and a main canal.

The total original cost of construction for the Okanogan project was \$1,484,324. In addition, rehabilitation work currently programed is estimated to cost \$36,305, with \$28,624 in costs to date at June 30, 1957. Repayment contract coverage for rehabilitation work has a ceiling of \$126,000. By acts of May 25, 1926, May 25, 1928, and January 30, 1954, construction cost chargeoffs totaled \$978,504.

Operation and maintenance of the irrigation system was assumed by the Okanogan irrigation district on December 31, 1928.

Repayment contracts.—The original contract for construction of the Okanogan project was with the Okanogan Water Users' Association on April 16, 1906. On February 10, 1919, the United States first contracted with the Okanogan Irrigation District. On September 20, 1949, an amendatory contract was signed that provided for payment by the district of \$326,247.64 in annual installments of \$10,003.09 each, varied by a gross-income ratio and by a parity ratio.

On August 15, 1951, the Okanogan irrigation district signed a contract to repay the costs of rehabilitating Conconully Dam. The maximum

repayment obligation of this contract is \$126,000, to be consolidated with the original project construction obligation to be repaid under the same rate and terms. Repayment of total obligations will be completed by about 1991.

PUBLIC NOTICES AND CONTRACTS

- 1908, November 12: Public notice. Construction charge of \$65 per acre, payable in 10 equal annual installments:
- 1912, April 29: Public notice. Construction charge raised to \$70 per acre, payable in annual installments of \$8 each, with first installment due on May 1, 1912.
- 1917, April 18: Public notice. Construction charge of \$95 per acre, payable in 20 graduated annual installments.
- 1918, August 29: Public notice. Supplemental construction for pumping plant. Rate, \$12.50 per acre, payable in two annual installments after regular construction.
- 1919, February 10: Contract with Okanogan irrigation district. District assumes obligations under individual water-right applications. Delinquent charges and penalties funded with construction.
- 1928, November 24: Contract with Okanogan irrigation district. Remaining obligation of district reduced to \$310,000, payable in 31 equal annual installments beginning with year 1928, plus \$4,259 for equipment taken over to be paid for in 10 years.
- 1948, September 20: Contract Ilr-1534 with Okanogan irrigation district. Obligation of district to be repaid in installments of \$10,033.09 each, adjusted by a gross-income ratio and by a parity ratio.
- 1951, August 15: Contract I74r-1649 with Okanogan irrigation district. Provides for rehabilitation and betterment of Conconully Dam at a cost not to exceed \$126,000. Costs of rehabilitation to be funded with the original project construction obligation and repaid under the same terms as that obligation.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1909		\$13, 785		\$13, 785	\$330		\$330	\$330
1910		52, 512		52, 512	13, 182		13, 182	13, 512
1911		52, 766		52, 766	8, 690		8, 690	22, 202
1912		610	¹ \$52, 273	¹ 51, 663	26	¹ \$7, 349	¹ 7, 323	14, 879
1913		706	122	828	242	720	962	15, 841
1914		706		706	82	464	546	16, 387
1915							66	16, 453
1916		130	135	265	125	12	137	16, 590
1917	\$780, 859	¹ 21, 551		¹ 52, 527			59	16, 649
1918	811, 649			17, 370			14, 584	31, 233
1919	812, 014			88	17, 884		337	31, 570
1920	821, 796			13, 289			2, 087	33, 657
1921	821, 796			229			751	34, 408
1922	1, 303, 003	3, 196	¹ 133	3, 063	123	6, 596	6, 719	41, 127
1923	1, 498, 579	12, 261	¹ 829	11, 432	5, 818	7, 336	13, 154	54, 281
1924	1, 497, 840	6, 110	¹ 1, 209	4, 901	2, 854	6, 603	9, 457	63, 738
1925	1, 497, 840	14, 617		14, 617	69	1, 007	1, 076	64, 814
1926	1, 513, 288	24, 004		24, 004	3, 144	5, 595	8, 739	73, 553
1927	1, 513, 288	46, 193		46, 193		27, 398	27, 398	100, 951
1928	1, 513, 288	18, 215		18, 215		6, 548	6, 548	107, 499
1929	¹ 424, 199	10, 426	¹ 60, 133	¹ 49, 707	10, 426	2, 441	12, 867	120, 366
1930	424, 199	10, 425		10, 425	10, 425		10, 425	130, 791
1931	424, 199	10, 426		10, 426	426		426	131, 217
1932	424, 199	² 10, 426		10, 426	2, 155		2, 155	133, 372
1933	424, 199	² 10, 426		10, 426	426		426	133, 798
1934	424, 199	² 10, 426		10, 426	426		426	134, 224
1935	426, 998	² 426	¹ 38, 271	¹ 37, 845	426		426	134, 650
1936	425, 875	² 2, 826		2, 826	2, 826		2, 826	137, 476
1937	425, 887	² 5, 426		5, 426	426		426	137, 902
1938	425, 887	² 5, 426		5, 426	426		426	138, 328
1939	425, 887	² 10, 000		10, 000				138, 328
1940	425, 887	² 10, 000	¹ 20, 000	¹ 10, 000				138, 328
1941	425, 887	10, 000		10, 000				138, 328
1942	425, 887	10, 000	¹ 20, 000	¹ 10, 000				138, 328
1943	425, 887	10, 000		10, 000				138, 328
1944	425, 887	10, 000		10, 000				138, 328
1945	425, 887	10, 000		10, 000				138, 328
1946	425, 887	10, 000		10, 000				138, 328
1947	425, 887	10, 000		10, 000				138, 328
1948	425, 887	10, 000		10, 000				138, 328
1949	425, 887	10, 000		10, 000				138, 328
1950	³ 468, 598	19, 103	⁴ 80, 000	⁴ 60, 897	19, 103		19, 103	157, 431
1951	468, 598	9, 877		9, 877	9, 877		9, 877	167, 308
1952	⁵ 468, 598	10, 874		10, 874	10, 874		10, 874	178, 182
1953	468, 598	14, 506		14, 506	14, 506		14, 506	192, 688
1954	468, 598	20, 066		20, 066	20, 066		20, 066	212, 754
1955	468, 598	15, 640		15, 640	15, 640		15, 640	228, 394
1956	468, 598	11, 745		11, 745	11, 745		11, 745	240, 139
1957	468, 598	10, 179		10, 179	10, 179		10, 179	250, 318
Total		522, 909	-272, 591	250, 318	192, 947	57, 371	250, 318	
Collected				250, 318				
Uncollected				0				

¹ Decrease. Decreases are due to cancellation of water-right applications, funding of delinquent charges, and deferments under relief acts. 1912—Adjustment under 1912 public notice. 1917—Reclamation Extension Act of Aug. 13, 1914. 1929—Decrease in obligation due to provisions of 1928 contract.
² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$8,924; 1931, \$10,625; 1932, \$10,325; 1933, \$10,025; 1934, \$10,025; 1935, \$10,025; 1936, \$10,012. Deferred under acts of Aug. 21, 1937; May 31,

1939, and Aug. 4, 1939, charges for calendar years 1937, \$10,000; 1938, \$10,000; 1939, \$10,000; 1940, \$10,000.

³ Obligation increased by amendatory contract 11r-1534 dated Sept. 20, 1948, to include cost of economic report and interest on delinquent installments.

⁴ Decrease. Delinquent installments have been canceled and made subject to repayment under new contract.

⁵ Does not include obligation for rehabilitation, \$126,000.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$594, 598
Total matured charges.....	250, 318
Total matured charges repaid.....	250, 318
Total matured charges unpaid.....	0

The allocation and repayment of costs:

Total original project cost.....	\$1, 484, 324
Estimated costs of rehabilitation (contract ceiling).....	126, 000
Subtotal.....	1, 610, 324
Interest and penalties funded.....	20, 750
Less net revenues applied to costs.....	57, 972

Total costs allocated to irrigation..... 1, 573, 102

Allocation to irrigation:

Reimbursable.....	594, 598
Chargeoffs, act of May 25, 1926, May 25, 1928, and January 30, 1954.....	978, 504

Total.....	1, 573, 102
Repayment of reimbursable costs: From irrigation water users.....	594, 598

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1909.....	\$3, 183	\$2, 996
1910.....	12, 120	9, 159
1911.....	17, 497	20, 498
1912.....	147	259
1913.....	1, 620	1, 504
1914.....	873	1, 024
1915.....	0	0
1916.....	861	802
1917.....	866	808
1918.....	18, 149	9, 727
1919.....	15, 395	1, 184
1920.....	29, 362	24, 100
1921.....	58, 122	49, 170
1922.....	26, 781	47, 100
1923.....	35, 992	48, 918
1924.....	62, 556	49, 775
1925.....	35, 983	3, 998
1926.....	66, 123	41, 179
1927.....	106, 615	13, 235
1928.....	50, 846	40, 356
1929.....	¹ 171, 649	5, 650
Total.....	371, 442	371, 442

¹ Decrease.

ORLAND PROJECT

ORLAND, CALIF.

Orland project was conditionally approved by the Secretary of the Interior on December 18, 1906, shortly after the formation of the Orland Unit Water Users' Association. The conditions were met and the authorization made definite on October 5, 1907.

The original project considered irrigation of about 14,000 acres of land surrounding and adjacent to the town of Orland, Glenn County. Principal features included East Park Dam and Reservoir and a distribution system. Additional features were constructed immediately after completion of the original structures, Rainbow Dam on Big Stony Creek and the feeder canal diverting into East Park Reservoir. Supplementary construction of the distribution system added 6,000 acres for cultivation. Further enlargement of storage facilities was made in 1928 with the construction of Stony Gorge Dam.

The total construction cost of the project, excluding rehabilitation and betterment charges, is \$2,583,870.

Since October 1, 1954, the project has been operated and maintained by the Orland Unit Water Users' Association.

Repayment contracts.—The original agreement between the United States and the Orland Unit Water Users' Association, dated April 3, 1909, provided for the construction of East Park and Rainbow diversion dams, and initial distribution facilities of the project. Supplemental agreements made possible the expansion of distribution facilities to accommodate about 20,000 acres of land as well as the construction of Stony Gorge Dam. Amendatory contracts were signed with each individual water user subsequent to the act of June 24, 1936, providing for full repayment of all construction and deferred costs. Under a provision of the contract of August 26, 1954, providing

for the operation and maintenance of the project by the Orland Unit Water Users' Association, the association assumed joint responsibility with the individual water users for the repayment of construction charges. Repayment will be substantially completed by 1976, though small amounts will be due annually until 2005. Application of surpluses to the construction obligation will reduce this period by about 7 or 8 years. Final repayment will be made about 1998.

PUBLIC NOTICES AND CONTRACTS

- 1909, April 3: Contract with Orland Unit Water Users' Association guarantees repayment of construction charges.
- 1916, May 24: Public notice: Construction charge, \$44 per acre, payable in 20 annual graduated installments; certain exceptions requiring repayment in 10 equal annual installments or in 15 annual graduated installments.
- 1918, April 2: Public notice: Supplemental construction; rate, \$11 per acre, payable in 18 annual graduated installments.
- 1926, June 15: Public notice: Supplemental construction; rate, \$68 per acre, payable in additional annual installments at \$4 per irrigable acre per annum, beginning December 1, 1936, and continuing until complete repayment.
- 1936: Amendatory contracts with each individual water-right applicant providing supplemental construction charges of \$68 per acre plus any construction and/or operation and maintenance charges due June 24, 1936, with accrued interest or penalties, shall be paid in 35 annual installments commencing March 1, 1937, and due December 1, thereafter.
- 1954, August 26: Contract 14-06-200-3502 with Orland Unit Water Users' Association for the care, operation, and maintenance of the Orland project; effective October 1, 1954.
- 1956, May 14: Contract 14-06-200-5559 with Orland Unit Water Users' Association for rehabilitation and betterment of the distribution system of the Orland project, and providing for repayment of the costs by the association.

The present repayment obligation of the water users' association has been determined as follows:

Construction cost-----	\$2, 583, 870
Rehabilitation and betterment contract-----	250, 000
Operation and maintenance funded-----	166, 363
Penalties funded-----	12, 965
Unsold water rights-----	10, 587
<hr/>	
Less:	
Contributions-----	1, 800
Water rental credits-----	22, 360
<hr/>	
Total-----	(24, 160)
Repayment obligation-----	2, 999, 625

Municipal and miscellaneous water contracts.—At the request of the unincorporated town of Elk Creek, the Glenn County High School, Elk Creek Elementary School, and Elk Creek Cemetery district for an adequate water supply for irrigation and miscellaneous purposes, a contract was executed to furnish 45 acre-feet per annum out of Stony Gorge Dam. Contract was executed March 25, 1936, upon receipt of \$1,147.50, the construction charge allocated against Stony Gorge Dam cost for delivery of 45 acre-feet per annum. Annual operation and maintenance charges pre-

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1917-----	\$735, 405	\$14, 708	-----	\$14, 708	\$14, 708	-----	\$14, 708	\$14, 708
1918-----	1, 019, 779	21, 374	-----	21, 374	21, 374	-----	21, 374	36, 082
1919-----	1, 046, 033	23, 356	-----	23, 356	23, 356	-----	23, 356	59, 438
1920-----	1, 054, 474	16, 484	-----	16, 484	16, 484	-----	16, 484	75, 922
1921-----	1, 061, 211	48, 308	-----	48, 308	48, 308	-----	48, 308	124, 230
1922-----	1, 063, 532	44, 433	-----	44, 433	44, 433	-----	44, 433	168, 663
1923-----	1, 066, 904	66, 566	-----	66, 566	66, 566	-----	66, 566	235, 229
1924-----	1, 068, 928	66, 575	-----	66, 575	66, 575	-----	66, 575	301, 804
1925-----	1, 068, 570	66, 455	-----	66, 455	36, 659	-----	36, 659	338, 463
1926-----	1, 068, 570	66, 553	-----	66, 553	52, 998	\$29, 796	82, 794	421, 257
1927-----	2, 439, 115	66, 382	-----	66, 382	53, 391	11, 319	64, 710	485, 967
1928-----	2, 446, 427	66, 139	-----	66, 139	55, 534	12, 060	67, 594	553, 561
1929-----	2, 450, 720	67, 582	-----	67, 582	54, 696	10, 684	65, 380	618, 941
1930-----	2, 482, 343	66, 599	-----	66, 599	54, 554	9, 680	64, 234	683, 175
1931-----	2, 474, 446	66, 388	² \$2, 232	64, 156	47, 027	8, 069	55, 096	738, 271
1932-----	2, 475, 061	66, 595	-----	66, 595	15, 753	7, 485	23, 238	761, 509
1933-----	2, 466, 451	³ 45, 709	² 55, 645	² 9, 936	20, 682	² 1, 093	19, 589	781, 098
1934-----	2, 471, 584	³ 22, 479	² 43, 033	² 20, 554	6, 771	² 16, 345	² 9, 574	771, 524
1935-----	2, 475, 403	³ 37, 628	² 20, 159	17, 469	8, 334	² 6, 043	2, 291	773, 815
1936-----	2, 473, 363	³ 20, 244	² 16, 737	3, 507	6, 026	² 645	5, 381	779, 196
1937-----	2, 499, 849	³ 24, 780	² 21, 005	3, 775	11, 596	² 2, 866	8, 730	787, 926
1938-----	2, 503, 415	23, 909	² 23, 417	492	14, 499	² 1, 682	12, 817	800, 743
1939-----	2, 499, 250	31, 942	² 4, 537	27, 405	23, 191	3, 317	26, 508	827, 251
1940-----	2, 500, 802	30, 094	² 2, 466	27, 628	17, 343	4, 767	22, 110	849, 361
1941-----	2, 499, 352	36, 768	² 2, 638	34, 130	22, 361	8, 523	30, 884	880, 245
1942-----	2, 473, 464	35, 962	² 14, 842	21, 120	21, 996	2, 992	24, 988	905, 233
1943-----	2, 470, 553	36, 850	² 239	36, 611	25, 209	11, 526	36, 735	941, 968
1944-----	2, 469, 157	43, 560	² 1, 726	41, 834	31, 934	8, 953	40, 887	982, 855
1945-----	2, 463, 340	43, 132	² 5, 728	37, 404	33, 067	8, 267	41, 334	1, 024, 189
1946-----	2, 463, 574	42, 104	² 110	41, 994	33, 915	9, 691	43, 606	1, 067, 795
1947-----	2, 440, 794	41, 834	² 12, 186	29, 648	32, 631	2, 045	34, 676	1, 102, 471
1948-----	2, 402, 194	40, 887	² 22, 574	18, 313	32, 953	² 2, 966	29, 987	1, 132, 458
1949-----	2, 398, 479	40, 825	² 1, 741	39, 084	32, 228	7, 415	39, 643	1, 172, 101
1950-----	2, 394, 364	40, 821	² 2, 451	38, 370	30, 085	9, 388	39, 473	1, 211, 574
1951-----	2, 419, 635	40, 745	-----	40, 745	34, 146	8, 714	42, 860	1, 254, 434
1952-----	2, 428, 995	41, 059	² 159	40, 900	32, 678	5, 283	37, 961	1, 292, 395
1953-----	2, 452, 699	39, 527	-----	39, 527	40, 655	-----	40, 655	1, 333, 050
1954-----	2, 453, 781	40, 942	-----	40, 942	39, 664	-----	39, 664	1, 372, 714
1955-----	2, 453, 522	42, 422	-----	42, 422	43, 305	-----	43, 305	1, 416, 019
1956-----	2, 457, 212	39, 645	-----	39, 645	38, 619	-----	38, 619	1, 454, 638
1957-----	2, 457, 212	41, 480	-----	41, 480	45, 184	-----	45, 184	1, 499, 822
Total-----	-----	1, 759, 245	-253, 625	1, 506, 220	1, 351, 488	148, 334	1, 499, 822	-----
Collected-----	-----	-----	-----	1, 499, 822	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	6, 398	-----	-----	-----	-----

¹ Increase in obligation due to supplemental construction under 1926 public notice.

² Decrease—decreases cover cancellation of water right applications and deferment of charges under relief acts.

³ Moratorium period 1932 through 1937: Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936.

vailing on the project are also levied and collected. The project lands have prior water rights.

Rehabilitation and betterment.—By a resolution dated February 24, 1950, the board of directors of the Orland Unit Water Users' Association requested a program of rehabilitation and betterment on project facilities not exceeding \$250,000. This was accomplished during fiscal years 1949, 1950, 1951, and 1952, and funds expended will be

reimbursed by increasing the annual operation and maintenance charge, payable by each water user, in the amount of \$0.67 per acre per annum beginning with the year 1950 and continuing until fully repaid.

On April 19, 1954, the North diversion dam failed. Temporary measures provided service during that irrigation season, and the dam was replaced the following autumn at a total cost of

Rehabilitation and betterment repayment history

Fiscal year	Total obligation of water users to repay	Aecruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950-----	\$250, 000	\$12, 830	-----	\$12, 830	\$12, 528	-----	\$12, 528	\$12, 528
1951-----	250, 000	13, 085	-----	13, 085	12, 844	\$244	13, 088	25, 616
1952-----	250, 000	12, 996	-----	12, 996	12, 735	135	12, 870	38, 486
1953-----	249, 922	12, 933	-----	12, 933	12, 824	-----	12, 824	51, 310
1954-----	249, 922	13, 024	-----	13, 024	12, 952	-----	12, 952	64, 262
1955-----	294, 921	13, 014	-----	13, 014	12, 750	-----	12, 750	77, 012
1956-----	542, 413	13, 168	-----	13, 168	12, 418	-----	12, 418	89, 430
1957-----	542, 413	13, 094	-----	13, 094	12, 967	-----	12, 967	102, 397
Total-----	-----	104, 144	-----	104, 144	102, 018	379	102, 397	-----
Collected-----	-----	-----	-----	102, 397	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	1, 747	-----	-----	-----	-----

Payout study

Construction			Rehabilitation and betterment				
Fiscal year	Estimated payments	Balance to repay	Fiscal year	1949 and 1954 contracts		1956 contract	
				Estimated payments	Balance to repay	Estimated payments	Balance to repay
Through—			Through—				
1957-----	\$41, 225	\$957, 390	1957-----	-----	\$190, 016	0	\$250, 000
1958-----	41, 660	915, 730	1958-----	\$13, 033	176, 983	0	250, 000
1959-----	42, 156	873, 574	1959-----	13, 033	163, 950	0	250, 000
1960-----	42, 177	831, 397	1960-----	13, 033	150, 917	\$10, 000	240, 000
1961-----	42, 205	789, 192	1961-----	13, 033	137, 884	10, 000	230, 000
1962-----	42, 260	746, 932	1962-----	13, 033	124, 851	10, 000	220, 000
1963-----	42, 334	704, 598	1963-----	13, 033	111, 818	10, 000	210, 000
1964-----	42, 533	662, 065	1964-----	13, 033	98, 785	10, 000	200, 000
1965-----	42, 541	619, 524	1965-----	13, 033	85, 752	10, 000	190, 000
1966-----	42, 552	576, 972	1966-----	13, 033	72, 719	10, 000	180, 000
1967-----	42, 574	534, 398	1967-----	13, 033	59, 686	10, 000	170, 000
1968-----	42, 574	491, 824	1968-----	13, 033	46, 653	10, 000	160, 000
1969-----	49, 334	442, 490	1969-----	13, 033	33, 620	10, 000	150, 000
1970-----	49, 333	393, 157	1970-----	13, 033	20, 587	10, 000	140, 000
1971-----	49, 765	343, 392	1971-----	13, 033	7, 554	10, 000	130, 000
1972-----	59, 981	283, 411	1972-----	7, 554	0	10, 000	120, 000
1973-----	59, 188	224, 223	1973-----	0	0	10, 000	110, 000
1974-----	59, 046	165, 177	1974-----	0	0	10, 000	100, 000
1975-----	57, 178	107, 999	1975-----	0	0	10, 000	90, 000
1976-----	62, 831	45, 168	1976-----	0	0	10, 000	80, 000
1977-2005-----	45, 168	0	1977-----	0	0	50, 000	30, 000
			1978-----	0	0	30, 000	0

¹ Payout of majority of water-right applicants.

\$42,491. Repayment of this cost is provided for in the operation and maintenance contract of August 26, 1954, by extending the \$0.67 per acre charge for the rehabilitation and betterment mentioned above.

The contract of May 14, 1956, provides for relining a portion of the canals and laterals of the distribution system over a 3-year period at an estimated cost of \$250,000. The work is to be performed by the association with funds advanced by the United States, and will be done during the winter season, beginning in fiscal year 1957, when no irrigation water is being delivered. Repayment will be made by the association, and is expected to be available through savings in annual operation and maintenance costs occasioned by the rehabilitation. Larger annual payments will be made after construction costs are substantially repaid. Two succeeding programs of the same nature are expected to follow to accomplish the full rehabilitation and betterment needed.

Proposed future rehabilitation and betterment work is estimated to cost an additional \$500,000. This work includes rehabilitation of stream banks of North diversion dam and relining of the South Canal and laterals.

As of June 30, 1957, the status of repayment is as follows:

Total value of contracted repayment.....	\$2, 999, 625
Total matured charges.....	1, 610, 362
Total charges repaid.....	1, 602, 216
Total matured charges unpaid.....	8, 146

Operation and maintenance assessments history¹

Fiscal year	Accruals	Collections
1918.....	\$26, 477	\$26, 382
1919.....	30, 251	30, 345
1920.....	34, 599	34, 293
1921.....	40, 335	40, 641
1922.....	41, 544	41, 434
1923.....	37, 726	37, 617
1924.....	34, 774	34, 810
1925.....	33, 276	26, 692
1926.....	34, 328	35, 606
1927.....	32, 839	31, 246
1928.....	34, 965	35, 214
1929.....	32, 449	32, 078
1930.....	34, 998	33, 228
1931.....	39, 561	33, 206
1932.....	38, 199	29, 267
1933.....	38, 683	30, 905
1934.....	36, 103	34, 977
1935.....	34, 036	32, 130
1936.....	32, 617	30, 879
1937.....	13, 169	25, 497
1938.....	30, 060	38, 345
1939.....	32, 346	31, 852
1940.....	36, 291	36, 516
1941.....	34, 567	33, 287
1942.....	30, 145	32, 476
1943.....	34, 770	34, 102
1944.....	51, 199	50, 104
1945.....	50, 331	51, 946
1946.....	57, 677	57, 730
1947.....	64, 585	68, 663
1948.....	61, 632	68, 762
1949.....	81, 241	81, 819
1950.....	91, 735	91, 665
1951.....	92, 826	93, 928
1952.....	93, 999	92, 904
1953.....	122, 178	120, 864
1954.....	124, 090	123, 039
Total.....	1, 770, 601	1, 764, 449

¹ Water users assumed operation and maintenance on Oct. 1, 1954.

OWYHEE PROJECT

NYSSA, OREG.

The Owyhee project was found feasible by the Secretary of the Interior on October 9, 1926, and approved by the President on October 12, 1926, under the provisions of section 4 of the act of June 25, 1910 (36 Stat. 836), and subsection (b) of section 4 of the act of December 5, 1924 (43 Stat. 702).

The purpose of the project is to irrigate approximately 105,000 acres of land in Idaho and Oregon, and in addition to furnish a supplemental water supply to about 13,800 acres in Oregon.

The major features of the project include the Owyhee Dam and Reservoir for storage, and extensive main canal, lateral, and drainage systems. The main canal system includes several pumping plants, and also several tunnels and siphons noteworthy for their size and length.

The project is composed of the Succor Creek, Mitchell Butte, and Dead Ox Flat divisions.

The total repayment ceiling of the project is \$19,826,659. The entire amount is repayable under the terms of repayment contracts with 9 irrigation districts in the Owyhee project, and a separate Warren Act contract with the Owyhee Ditch Co. In 1952 the project works were transferred to the water users for operation and maintenance, with the exception of the Owyhee Reservoir and related works, which were operated and maintained by the United States until transferred to the water users November 1, 1954. The water users' irrigation districts are organized into two separate boards of control. The South Board of Control is formed by the Gem and Ridgeview irrigation districts. The North Board of Control represents the Slide, Owyhee, Payette-Oregon Slope, Ontario-Nyssa, Bench, Crystal, and Advancement irrigation districts.

Repayment contracts.—The original contracts with the Advancement, Bench, Crystal, Gem, King-

man Colony, Ontario-Nyssa, Owyhee, Payette-Oregon Slope, and the Slide irrigation districts provided for repayment of the construction costs in 39 annual installments. Contracts have also been entered into with the Owyhee Ditch Co. for purchase of 21,000 acre-feet of storage capacity in the Owyhee Reservoir at a price of \$300,000, payable in 30 annual installments and for payment of 18 percent of cost of constructing the Owyhee ditch pumping plant. The obligation to be repaid by the water users now totals \$19,826,659. Of this amount, \$326,659 is covered under separate contracts with the Owyhee Ditch Co. The amendatory repayment contract for \$19,500,000, dated August 29, 1951, did not become effective until October 1952. However, approval by the Congress was made on June 23, 1952, under Public Law 402, 82d Congress, 2d session. This contract provides for a fixed annual assessment of \$2.10 per acre, with application of the normal and percentage plan plus parity provisions optional.

CONTRACTS

- 1926, October 14: Contract Ilr-61 with Gem irrigation district to cover construction costs.
- 1926, October 14: Contract Ilr-60 with Slide irrigation district to cover construction costs.
- 1926, October 14: Contract Ilr-59 with Owyhee irrigation district for repayment of construction costs.
- 1926, October 14: Contract Ilr-58 with Payette-Oregon Slope irrigation district for repayment of construction costs.
- 1927, February 5: Contract Ilr-153 with Ontario-Nyssa irrigation district to cover construction costs.
- 1928, August 3: Contract Ilr-356 with Owyhee Ditch Co. for purchase of 21,000 acre-feet of storage in Owyhee Reservoir.
- 1929, January 14: Contract with Kingman Colony irrigation district to cover construction costs.
- 1931, October 5: Contract Ilr-675 with Bench irrigation district to cover construction costs.

1931, November 28: Contract Ilr-678 with Crystal irrigation district to cover construction costs.

1935, August 28: Contract Ilr-809 with Owyhee Ditch Co. to cover 18 percent of cost of Owyhee ditch pumping plant, repayable in 40 annual installments.

1936, September 1: Contract Ilr-882 with Advancement irrigation district for repayment of construction costs.

1951, August 29: Amendatory repayment contract Ilr-876 supersedes all above contracts with exception of those with Owyhee Ditch Co. Kingman Colony irrigation district combined with Owyhee irrigation district. Owyhee irrigation district lands under South Main Canal comprise the newly formed Ridgeview irrigation district, which is party to the amendatory contract. Contract calls for a base annual charge of \$210,000. (One hundred thousand acres at \$2.10 subject to adjustment for power cost variations) commencing in 1953, to be completed in 88 years. Application of normal and percentage plan optional.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$19, 826, 659
Total matured charges.....	2, 517, 255
Total matured charges repaid.....	2, 513, 658
Total matured charges unpaid.....	3, 597

The repayment obligation ceiling is established as follows:

Completed plant and prepayments.....	\$19, 279, 253
Incomplete rehabilitation work.....	81, 982
Other incomplete work.....	35, 301
Total estimated cost.....	19, 396, 536
Funded charges ¹	480, 882
Less contributions.....	-23, 107
Less water users' equity.....	-62, 393
Remaining contract ceiling.....	34, 741

Repayment contract..... 19, 826, 659

¹ Includes anticipated charges of \$2,240.

Construction repayment history

Fiscal year	Total obligations of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1940.....	\$18, 145, 605	\$10, 000	-----	\$10, 000	\$10, 000	-----	\$10, 000	\$10, 000
1941.....	18, 145, 605	10, 000	-----	10, 000	10, 000	-----	10, 000	20, 000
1942.....	18, 145, 605	10, 000	-----	10, 000	10, 000	-----	10, 000	30, 000
1943.....	18, 145, 605	10, 000	-----	10, 000	10, 000	-----	10, 000	40, 000
1944.....	18, 145, 605	10, 000	-----	10, 000	10, 000	-----	10, 000	50, 000
1945.....	18, 145, 605	10, 000	-----	10, 000	10, 000	-----	10, 000	60, 000
1946.....	18, 145, 605	10, 000	-----	10, 000	10, 000	-----	10, 000	70, 000
1947.....	18, 145, 605	112, 385	-----	112, 385	111, 163	-----	111, 163	181, 163
1948.....	18, 145, 605	214, 770	-----	214, 770	212, 307	-----	212, 307	393, 470
1949.....	18, 145, 605	214, 770	-----	214, 770	212, 288	-----	212, 288	605, 758
1950.....	18, 145, 605	214, 770	-----	214, 770	212, 288	-----	212, 288	818, 046
1951.....	18, 145, 605	419, 540	-----	419, 540	217, 854	-----	217, 854	1, 035, 900
1952.....	18, 145, 605	216, 396	-----	216, 396	307, 117	-----	307, 117	1, 343, 017
1953.....	¹ 19, 826, 659	236, 949	² \$96, 256	140, 693	201, 089	-----	201, 089	1, 544, 106
1954.....	19, 826, 659	228, 483	-----	228, 483	234, 559	-----	234, 559	1, 778, 665
1955.....	19, 826, 659	228, 482	-----	228, 482	276, 720	-----	276, 720	2, 055, 385
1956.....	19, 826, 659	228, 483	-----	228, 483	226, 060	-----	226, 060	2, 281, 445
1957.....	19, 826, 659	228, 483	-----	228, 483	232, 213	-----	232, 213	2, 513, 658
Total.....	-----	2, 613, 511	-96, 256	2, 517, 255	2, 513, 658	-----	2, 513, 658	-----
Collected.....	-----	-----	-----	2, 513, 658	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	3, 597	-----	-----	-----	-----

¹ Amendatory repayment contract Ilr-876, total \$19,500,000, approved June 23, 1952 by the Congress and executed in behalf of the United States July 18, 1952. Contracts Ilr-356 and Ilr-809 with Owyhee Ditch Co.; total \$326,659.

² Prior years accruals adjusted by provisions of new contract.

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1935 -----	\$250	\$250
1936 -----	250	250
1937 -----	30,318	30,318
1938 -----	20,052	20,052
1939 -----	¹ 5,382	¹ 5,382
1940 -----	¹ 2,571	¹ 2,571
1941 -----	367	367
1942 -----	319	319
1943 -----	308	308
1944 -----	477	477
1945 -----	484	484
1946 -----	135,425	160,286
1947 -----	330,301	331,093
1948 -----	304,497	291,364
1949 -----	321,985	353,685
1950 -----	344,506	424,535
1951 -----	560,749	299,981
1952 -----	523	137,042
1953 -----	154,069	154,069
1954 -----	25,653	25,653
1955 -----	² 6,197	² 6,197
Total -----	2,216,383	2,216,383

¹ Decrease. Operation and maintenance accruals and collections canceled and applied to water rentals.

² Decrease.

PALISADES PROJECT

IDAHO FALLS, IDAHO

Palisades Dam project was initially authorized December 9, 1941 (H. Doc. 457, 77th Cong., 1st sess.), under provisions of section 9 of the Reclamation Project Act of 1939 (53 Stat. 1187). Construction was delayed because of World War II and the necessity of reaching water-savings agreements between the Bureau of Reclamation and the farmers in the Upper Snake River Valley. In 1949 the original plan of development was changed by increasing the power capacity, enlarging the outlet works and adding recreation features. Congress reauthorized the Palisades project by act of September 30, 1950 (64 Stat. 1083).

The Palisades Reservoir will provide supplemental irrigation water for 650,000 acres of land located in the Upper Snake River Valley. The 114,000-kilowatt powerplant will serve irrigation pumping, municipal, cooperative and private loads. Direct flood protection will be provided for land located on the Snake River Plain above American Falls Reservoir. Completed project works will include the dam and reservoir, powerplant and transmission lines.

The total estimated cost of the Palisades project is \$62,500,000.

The construction costs are allocated as follows:

Reimbursable:	
Irrigation.....	\$27, 067, 090
Power.....	17, 256, 910
Nonreimbursable:	
Flood control.....	17, 528, 000
Fish and wildlife and recreation.....	648, 000
Total.....	62, 500, 000

The project costs allocated to irrigation and power are reimbursable and are to be repaid under terms consistent with Reclamation law. Of this amount, water users are to repay \$9,300,000. The irrigation allocation includes \$11,992,090 of

irrigation power facilities which are reimbursable by power.

After payout of Palisades project costs, net power revenues are applied to irrigation costs on the Michaud Flats project and the Michaud Division of the Fort Hall Indian Reservation in accordance with the provisions of Public Law 741, 83d Cong., 2d session, approved August 31, 1954.

Power and energy available during the irrigation season is reserved for Federal project pumping loads and the Minidoka project power system. Commercial firm power is sold to the city of Idaho Falls, Lost River Electric Cooperative, Inc., Fall River Rural Electric Cooperative, Inc., and Lower Valley Power & Light, Inc. Secondary energy during the irrigation season is sold to the Idaho Power Co. Dump energy is sold to the Utah Power & Light Co. and the Idaho Power Co.

Repayment contracts.—On June 30, 1957, the Bureau of Reclamation had negotiated repayment contracts with 43 irrigation districts and canal companies and the Bureau of Indian Affairs for repayment of the costs allocated for repayment by irrigation. Additional contracts with other users will be negotiated to cover the remaining portion of the \$9,300,000 allocated for repayment by water users.

CONTRACTS

- 1952, December 12: Contract 14-06-W-18 for \$49,500 with Parks & Lewisville Canal Irrigation Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-10 for \$28,350 with Reed Canal Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-26 for \$56,700 with Rigby Canal & Irrigating Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-25 for \$10,800 with Riverside Ditch Co. Payable in 40 years on a fixed installment basis.

- 1952, December 12: Contract 14-06-W-37 for \$141,300 with Rudy Irrigation Canal Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-31 for \$35,100 with Shattuck Irrigation Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-35 for \$317,700 with Snake River Valley irrigation district. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-12 for \$56,700 with Sunnyside irrigation district. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-27 for \$21,150 with Texas Slough Irrigating Canal Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-23 for \$28,800 with Trego Ditch Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-13 for \$21,150 with West Side Mutual Canal Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-28 for \$900,000 with North Side Canal Co. Payable in 40 years on a fixed installment basis.
- 1952, December 18: Contract 14-06-W-48 for \$352,800 with Burley irrigation district. Payable in 40 years on a fixed installment basis.
- 1952, December 18: Contract 14-06-W-44 for \$282,600 with Peoples Canal & Irrigation Co. Payable in 40 years on a fixed installment basis.
- 1952, December 18: Contract 14-06-W-45 for \$13,950 with Poplar irrigation district. Payable in 40 years on a fixed installment basis.
- 1952, December 18: Contract 14-06-W-47 for \$211,500 with Progressive irrigation district. Payable in 40 years on a fixed installment basis.
- 1952, December 18: Contract 14-06-W-46 for \$21,150 with Watson Slough Ditch Co., Ltd., and Watson Slough Irrigation Co. Payable in 40 years on a fixed installment basis.
- 1952, December 18: Contract 14-06-W-50 for \$5,400 with Wearyrick Ditch Co. Payable in 40 years on a fixed installment basis.
- 1952, December 18: Contract 14-06-W-49 for \$54,000 with Woodville Canal Co. Payable in 40 years on a fixed installment basis.
- 1955, January 7: Contract 14-06-W-92 for \$247,500 with Milner low lift irrigation district. Payable in 40 years on a fixed installment basis.
- 1952, October 22: Contract 14-06-W-24 for \$1,375,200 with Aberdeen-Springfield Canal Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-39 for \$36,450 with Blackfoot Irrigation Co. Payable in 40 years on a fixed installment basis.
- 1952, December 18: Contract 14-06-W-41 for \$282,600 with Burgess Canal & Irrigating Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-21 for \$2,250 with Butler Island Canal Co., Ltd. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-38 for \$396,000 with Butte & Market Lake Canal Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-20 for \$7,200 with Clark & Edwards Canal or Irrigating Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-12 for \$56,700 with Corbett Slough Ditch Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-4812 for \$21,150 with Danskin Ditch Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract No. 14-06-W-3212 for \$10,800 with Dilts Irrigation Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-1512 for \$176,400 with Enterprise Canal Co., Ltd. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-1112 for \$84,600 with Farmers Friend Irrigation Co., Ltd. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-3012 for \$211,500 with Harrison Canal & Irrigation Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-3312 for \$529,200 with Idaho irrigation district. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-2912 for \$42,300 with Island Irrigation Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-1612 for \$7,200 with Labelle Irrigating Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-2212 for \$70,650 with Lenroot Canal Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-1912 for \$21,150 with Liberty Park Irrigation Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-3412 for \$14,400 with Lowder Slough Canal Co., Ltd. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-3612 for \$50,400 with Martin Canal Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-1712 for \$105,750 with New Lava Side Ditch Co. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract No. 1412 for \$282,600 with New Sweden irrigation district. Payable in 40 years on a fixed installment basis.
- 1952, December 12: Contract 14-06-W-4312 for \$10,800 with North Rigby Irrigation & Canal Co. Payable in 40 years on a fixed installment basis.
- 1957, April 25: Memorandum of agreement in amount of \$650,225 with Bureau of Indian Affairs. Repayment to be made on a nonappropriation cost transfer basis.

Palisades costs to be returned from power and irrigation

Allocation	By power		By irrigation	Total
	Commercial electric plant	Irrigation plant		
Power-----	\$17, 256, 910	\$11, 992, 090		\$29, 249, 000
Irrigation-----		5, 775, 000	\$9, 300, 000	15, 075, 000
Interest during construction-----	1, 391, 636			1, 391, 636
Total-----	18, 648, 546	17, 767, 090	9, 300, 000	45, 715, 636

Payout study

Fiscal year	Power							Irrigation			Recapitulation	
	Net operating revenues	Repayment components of net power revenues		Investment repayment from power revenues				Net revenues from water users	Investment repayment		Net project revenues	Earned surplus (cumulative)
		Interest, 3 percent	Principal	Interest-bearing—commercial electric plant		Interest-free aid to irrigation plant			Irrigation plant in service at end of year ²	Interest-free balance to be repaid		
In service at end of year	Balance to be repaid			Required aid ¹	Balance to be repaid							
Through—												
1957-----	\$381,400	0	\$381,400	\$13,936,590	\$13,555,190	\$13,325,318	\$13,325,318	0	\$8,602,500	\$8,602,500	\$381,400	0
1958-----	1,211,000	\$406,656	804,344	18,648,546	17,462,802	17,767,090	17,767,090	\$650,225	9,300,000	8,649,775	1,861,225	0
1959-----	1,265,200	523,884	741,316	18,648,546	16,721,486	17,767,090	17,767,090	0	9,300,000	8,649,775	1,265,200	0
1960-----	1,219,800	501,645	718,155	18,648,546	16,003,331	17,767,090	17,767,090	190,728	9,300,000	8,459,047	1,410,528	0
1961-----	1,212,400	480,100	732,300	18,648,546	15,271,031	17,767,090	17,767,090	190,727	9,300,000	8,268,320	1,403,127	0
1962-----	1,210,700	458,131	752,569	18,648,546	14,518,462	17,767,090	17,767,090	191,633	9,300,000	8,076,687	1,402,333	0
1963-----	1,213,300	435,554	777,746	18,648,546	13,740,716	17,767,090	17,767,090	191,632	9,300,000	7,885,055	1,404,932	0
1964-----	1,213,300	412,221	801,079	18,648,546	12,939,637	17,767,090	17,767,090	192,016	9,300,000	7,693,039	1,405,316	0
1965-----	1,213,300	388,189	825,111	18,648,546	12,114,526	17,767,090	17,767,090	193,584	9,300,000	7,499,455	1,406,884	0
1966-----	1,213,300	363,436	849,864	18,648,546	11,264,662	17,767,090	17,767,090	195,433	9,300,000	7,304,022	1,408,733	0
1967-----	1,213,300	337,940	875,360	18,648,546	10,389,302	17,767,090	17,767,090	199,340	9,300,000	7,104,682	1,412,640	0
1968-----	1,213,300	311,679	901,621	18,648,546	9,487,681	22,595,090	22,595,090	204,166	9,300,000	6,900,516	1,417,466	0
1969-----	1,213,300	284,630	928,670	18,648,546	8,559,011	22,595,090	22,595,090	211,017	9,300,000	6,689,499	1,424,317	0
1970-----	1,213,300	256,770	956,530	18,648,546	7,602,481	22,595,090	22,595,090	211,017	9,300,000	6,478,482	1,424,317	0
1971-----	1,213,300	228,074	985,226	18,648,546	6,617,255	22,595,090	22,595,090	211,017	9,300,000	6,267,465	1,424,317	0
1972-----	1,213,300	198,518	1,014,782	18,648,546	5,602,473	22,595,090	22,595,090	211,017	9,300,000	6,056,448	1,424,317	0
1973-----	1,213,300	168,074	1,045,226	18,648,546	4,557,247	22,595,090	22,595,090	211,017	9,300,000	5,845,431	1,424,317	0
1974-----	1,213,300	136,717	1,076,583	18,648,546	3,480,664	22,595,090	22,595,090	211,017	9,300,000	5,634,414	1,424,317	0
1975-----	1,213,300	104,420	1,108,880	18,648,546	2,371,784	22,595,090	22,595,090	211,017	9,300,000	5,423,397	1,424,317	0
1976-----	1,213,300	71,154	1,142,146	18,648,546	1,229,638	22,595,090	22,595,090	211,017	9,300,000	5,212,380	1,424,317	0
1977-----	1,213,300	36,889	1,176,411	18,648,546	53,227	22,595,090	22,595,090	211,017	9,300,000	5,001,363	1,424,317	0
1978-----	1,213,300	1,597	53,227	18,648,546	0	22,595,090	21,436,614	211,017	9,300,000	4,790,346	1,424,317	0
1979-----	1,213,300	0	0	18,648,546	0	22,595,090	20,223,314	211,017	9,300,000	4,579,329	1,424,317	0
1980-----	1,213,300	0	0	18,648,546	0	22,595,090	19,010,014	211,017	9,300,000	4,368,312	1,424,317	0
1981-----	1,213,300	0	0	18,648,546	0	22,595,090	17,796,714	211,017	9,300,000	4,157,295	1,424,317	0
1982-----	1,213,300	0	0	18,648,546	0	22,595,090	16,583,414	211,017	9,300,000	3,946,278	1,424,317	0
1983-----	1,213,300	0	0	18,648,546	0	22,595,090	15,370,114	211,017	9,300,000	3,735,261	1,424,317	0
1984-----	1,213,300	0	0	18,648,546	0	22,595,090	14,156,814	211,017	9,300,000	3,524,244	1,424,317	0
1985-----	1,213,300	0	0	18,648,546	0	22,595,090	12,943,514	211,017	9,300,000	3,313,227	1,424,317	0
1986-----	1,213,300	0	0	18,648,546	0	22,595,090	11,730,214	211,017	9,300,000	3,102,210	1,424,317	0
1987-----	1,213,300	0	0	18,648,546	0	22,595,090	10,516,914	211,017	9,300,000	2,891,193	1,424,317	0
1988-----	1,213,300	0	0	18,648,546	0	22,595,090	9,303,614	211,017	9,300,000	2,680,176	1,424,317	0
1989-----	1,213,300	0	0	18,648,546	0	22,595,090	8,090,314	211,017	9,300,000	2,469,159	1,424,317	0
1990-----	1,213,300	0	0	18,648,546	0	22,595,090	6,877,014	211,017	9,300,000	2,258,142	1,424,317	0
1991-----	1,213,300	0	0	18,648,546	0	22,595,090	5,663,714	211,017	9,300,000	2,047,125	1,424,317	0
1992-----	1,213,300	0	0	18,648,546	0	22,595,090	4,450,414	211,017	9,300,000	1,836,108	1,424,317	0
1993-----	1,213,300	0	0	18,648,546	0	22,595,090	3,237,114	211,017	9,300,000	1,625,091	1,424,317	0
1994-----	1,213,300	0	0	18,648,546	0	22,595,090	2,023,814	211,017	9,300,000	1,414,074	1,424,317	0
1995-----	1,213,300	0	0	18,648,546	0	22,595,090	810,514	211,017	9,300,000	1,203,057	1,424,317	0
1996-----	1,213,300	0	0	18,648,546	0	22,595,090	0	211,017	9,300,000	992,040	1,424,317	\$402,786
1997-----	1,213,300	0	0	18,648,546	0	22,595,090	0	211,017	9,300,000	781,023	1,424,317	1,616,086
1998-----	1,213,300	0	0	18,648,546	0	22,595,090	0	211,017	9,300,000	570,006	1,424,317	2,829,386
1999-----	1,213,300	0	0	18,648,546	0	22,595,090	0	211,017	9,300,000	358,989	1,424,317	4,042,686
2000-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,290	9,300,000	338,699	1,233,590	5,255,986
2001-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,289	9,300,000	318,410	1,233,589	6,469,286
2002-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,290	9,300,000	298,120	1,233,590	7,682,586
2003-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,289	9,300,000	277,831	1,233,589	8,895,886
2004-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,290	9,300,000	257,541	1,233,590	10,109,186
2005-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,289	9,300,000	237,252	1,233,589	11,322,486
2006-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,290	9,300,000	216,962	1,233,590	12,535,786
2007-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,289	9,300,000	196,673	1,233,589	13,749,086
2008-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,290	9,300,000	176,383	1,233,590	14,962,386
2009-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,289	9,300,000	156,094	1,233,589	16,175,686
2010-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,290	9,300,000	135,804	1,233,590	17,388,986
2011-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,289	9,300,000	115,515	1,233,589	18,602,286
2012-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,290	9,300,000	95,225	1,233,590	19,815,586
2013-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,289	9,300,000	74,936	1,233,589	21,028,886
2014-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,290	9,300,000	54,646	1,233,590	22,242,186
2015-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,289	9,300,000	34,357	1,233,589	23,455,486
2016-----	1,213,300	0	0	18,648,546	0	22,595,090	0	20,290	9,300,000	14,067	1,233,590	24,668,786
2017-----	1,213,300	0	0	18,648,546	0	22,595,090	0	14,067	9,300,000	0	1,227,367	25,882,086
Total-----	73,232,000	6,106,278	18,648,546	18,648,546	0	22,595,090	0	9,300,000	9,300,000	0	82,532,000	25,882,086

¹ Irrigation assistance includes \$17,067,090 for Palisades project and \$4,828,000 for Michaud Flats project and Michaud division of the Fort Hall Indian Reservation (Public Law 741, 83d Cong., 2d sess.).

² Includes storage obligation for all users of Palisades storage including Minidoka North Side pumping division, Michaud Flats project, and Michaud division of Fort Hall Indian Reservation.

PALO VERDE PROJECT

BLYTHE, CALIF.

The construction of the Palo Verde project, located in Yuma County, Ariz., and Riverside County, Calif., was authorized by the act of August 31, 1954 (68 Stat. 1045).

The purpose of the project is to reestablish for the Palo Verde irrigation district, a public agency of the State of California, a means of diverting its irrigation water supply from the Colorado River into its system, to provide protection for the lands of the Colorado River Indian Reservation against Colorado River floods, and to provide a means of draining the reservation lands. The act also authorized a loan of not to exceed \$500,000 to the district for the modification of its existing works to accommodate them to the new diversion structures. The present rock weir across the river will be removed to the extent its effect on the river and the works being constructed is nullified.

The district has priorities to Colorado River water for irrigation of 104,500 acres of valley lands and 16,000 acres of mesa lands in Riverside County, Calif. Project features include an earth and rockfill dam across the river near the district's former intake together with gated reinforced concrete spillway, intake works, a system of levees and an intercepting drain.

The total estimated cost of the project is \$5,356,593. All of the project costs are non-

reimbursable excepting \$1,175,000 of the construction costs and that portion of the \$500,000 loaned to the district for modification of its works. A contract has been executed with the district for repayment of the reimbursable costs over a period of 50 years. Upon completion of construction, the District will operate and maintain the dam, spillway, intake, and appurtenant works. Upon repayment by the district of the reimbursable costs in full, title to these works and the lands upon which they are constructed will pass to the District.

An agreement between the Commissioners of Indian Affairs and Reclamation approved by the Secretary provides that after the levees and drain are completed, their operation and maintenance will be the responsibility of the Bureau of Indian Affairs.

The summary of status of repayment contract:

Total value of contracted repayment.....	\$1, 675, 000
Total matured charges.....	10, 000
Total matured charges paid.....	10, 000
Total matured charges unpaid.....	0

CONTRACT

1955, October 7: Contract 14-06-W-94 with Palo Verde irrigation district for \$1,675,000, repayable in 50 years beginning in 1956.

PAONIA PROJECT

PAONIA, COLO.

Construction of the Paonia project was approved by the President on March 18, 1939, under the terms of subsection B, section 4, act of December 5, 1924 (43 Stat. 701). It was reauthorized by act of June 25, 1947 (61 Stat. 181). The act of April 11, 1956 (70 Stat. 105), which authorized the Colorado River storage project and participating projects, also authorized extending Paonia project.

The project is located in Gunnison and Delta Counties in west-central Colorado and is designed to furnish supplemental water to 14,830 acres of land and full water supply to 2,210 acres. Lands to be served are divided into three areas: Fire Mountain, Leroux Creek, and Minnesota. The irrigation features are to consist of Paonia Dam and Reservoir, Fire Mountain Canal, Overland Canal, and Minnesota siphon and pumping plant at an estimated cost of \$6,800,007.

The cost of facilities now completed at a cost of \$1,410,000 is repayable under the terms of the present contract with the North Fork water conservancy district.

The completed project features are being operated by the Fire Mountain Canal & Reservoir Co.

Repayment contracts.—The original North Fork water conservancy district repayment contract (Ilr-1536) was signed on June 11, 1948. The contract provides for repayment of \$2,320,000 in 68 annual installments. Repayment plan also includes an optional normal and percentage variable repayment plan. Project costs beyond the irrigation water users ability to pay will be

paid from revenues in the Upper Colorado River Basin fund in accordance with the act of April 11, 1956 (70 Stat. 105).

CONTRACTS

- 1948, June 11: Contract Ilr-1536 with North Fork water conservancy district. Repay \$2,320,000 in 68 annual installments to begin after development period of 3 years for Fire Mountain and 10 years for Leroux Creek lands. Includes an optional variable repayment plan. "Normal and percentages plan" based on gross value of crops produced.
- 1948, August 9: Contract Ilr-1537 with North Fork water conservancy district and the Fire Mountain Canal & Reservoir Co. The company grants the United States the right to reconstruct, relocate, enlarge, and extend Fire Mountain Canal, with works to be operated and maintained by the company.

The repayment status as of June 30, 1957:

Total value of contracted repayment.....	\$2, 320, 000
Total matured charges.....	0
Total charges repaid.....	0
Total matured charges unpaid.....	0

The allocation and repayment of costs:

Total estimated cost.....	\$6, 800, 007
Allocation: Reimbursable costs: irrigation...	6, 652, 707
Nonreimbursable costs:	
Flood control.....	74, 100
Fish and wildlife.....	73, 200
Total.....	6, 800, 007

Repayment of reimbursable costs:

From irrigation water users.....	2, 320, 000
From Upper Colorado River Basin fund..	4, 332, 707
Total.....	6, 652, 707

PARKER-DAVIS PROJECT

ARIZONA-CALIFORNIA-NEVADA

The Parker Dam power and Davis Dam projects were authorized and constructed separately. Their consolidation into the Parker-Davis project was authorized by act of May 28, 1954 (68 Stat. 143). The Parker Dam power project was authorized under the Rivers and Harbors Act of August 30, 1935 (Public Law 409, 74th Cong., 1st sess., 49 Stat. 1028). The Davis Dam project was authorized under the Reclamation Act of 1939 (53 Stat. 1187) when a finding of feasibility was made by the Secretary of the Interior on April 26, 1941.

The primary purpose of Parker Dam was to provide a forebay from which the Metropolitan water district could pump water into its Colorado River aqueduct. The dam was constructed with funds advanced by the Metropolitan water district. Parker Dam powerplant was later added to provide low-cost electrical energy to Arizona and southern California. Power generation started on December 13, 1942. Davis Dam provides regulation of the Colorado River below Hoover Dam and water for domestic use, including irrigation within the United States and delivery of water at the United States-Mexico international boundary as required in article 12 (b) of the Mexican Water Treaty of November 8, 1945. The Davis Dam project also provides for production and transmission of electric energy.

The major project works include Davis Dam and powerplant, Parker Dam and powerplant, and a high-voltage transmission system with substations which provide for delivery of energy to the customers and sectionalizing of the long transmission lines. Five generating units rated 45,000 kilovolt-amperes each are installed at Davis powerplant and four units of 30,000 kilovolt-amperes each are installed at Parker. The

transmission system includes approximately 1,600 miles of high-voltage transmission lines and 36 substations.

The total estimated cost of the Parker-Davis project is \$142,254,735, of which \$141,013,766, including \$135,243 in Yuma project facilities being repaid by Parker-Davis, has been expended prior to June 30, 1957. The portion of the project cost allocated to power is \$105,998,164. This amount will be repaid from power revenues with interest at 3 percent. In addition, \$22,341,889 allocated to irrigation and the cost of servicing the Mexican Treaty will be repaid from power revenues without interest. The total net revenue as of June 30, 1957, is \$31,250,145. These revenues have repaid to the Treasury \$12,859,884 of the cost allocated to power and \$18,390,261 in interest payments.

All project works are operated and maintained by the Government forces.

The allocation and repayment of costs:

<i>Total estimated construction cost</i>	
Parker Dam division:	
Dam and reservoir.....	\$8, 485, 092
Powerplant.....	10, 388, 052
Davis Dam division:	
Dam and reservoir.....	38, 734, 342
Powerplant.....	24, 467, 831
Transmission division:	
Substations.....	34, 513, 158
Transmission lines.....	22, 568, 280
Communication system.....	512, 504
General plant.....	2, 587, 239
Project headquarters office—general plant..	546, 185
<hr/>	
Total construction cost.....	142, 802, 683
Cost adjustments to completed features...	(824, 567)
G. L. 108.3.....	141, 376
G. L. 111.....	135, 243
<hr/>	
Total project cost.....	142, 254, 735

Contributions and non-reimbursable:

Metropolitan water district contributions toward construction at Parker Dam.....	\$13, 011, 227
Highway construction, State of Arizona.....	31, 060
Public Road Administration (Public Law 562, 79th Cong., 2d sess.).....	872, 395
Total contributions and nonreimbursables.....	13, 914, 682

Reimbursables (interest free):

Servicing the Treaty With Mexico.....	\$10, 524, 000
Irrigation allocation for repayment from power revenues.....	11, 817, 889

Total reimbursables (interest free)..... 22, 341, 889

Reimbursables (with interest): All other electric plant investment for repayment from power revenues.....	105, 998, 164
---	---------------

Total construction cost..... 142, 254, 735

Contracts for sale of power (as amended to Sept. 25, 1957)

Contract No.	Contractor	Contract rate of delivery	Date of execution	Date of termination
Ilr-1100.....	Arizona Public Service Co.....	30,000 kilovolt-amperes.	Apr. 24, 1939	Indefinite—not before Dec. 13, 1962.
Ilr-1114.....	Salt River power district.....	30,000 kilovolt-amperes.	May 12, 1939	
12r-13919.....	Bagdad Copper Corp.....	4,000 kilowatts.....	Mar. 14, 1942	Dec. 31, 1962.
Ilr-1398.....	Bureau of Indian Affairs for Colorado River Indian Reservation.	2,000 kilowatts.....	Mar. 12, 1943	July 31, 1962.
12r-11533.....	Tuscon Gas, Electric Light & Power Co.	15,000 kilowatts.....	July 3, 1940	Dec. 31, 1962.
176r-537.....	Arizona Power Authority.....	45,775 kilowatts.....	June 16, 1949	Dec. 31, 1970, unless previously terminated not earlier than Dec. 31, 1962.
176r-608.....	State of Nevada.....	45,000 kilowatts.....	Mar. 29, 1950	
176r-647.....	Department of the Air Force.....	15,000 kilowatts.....	June 14, 1950	
176r-751.....	Department of the Army.....	3,000 kilowatts.....	Feb. 1, 1952	
176r-638.....	Imperial irrigation district.....	30,000 kilowatts.....	Sept. 26, 1950	
Ilr-1587.....	National Park Service (Davis Dam).....	250 kilowatts.....	July 31, 1951	
Ilr-1593.....	Bureau of Indian Affairs for San Carlos project.	14,000 kilowatts.....	Apr. 25, 1952	Indefinite.
176r-755.....	Wellton-Mohawk irrigation and drainage district.	2,000 kilowatts.....	Apr. 2, 1952	
176r-666.....	Yuma irrigation district.....	1,500 kilowatts.....	Apr. 1, 1951	Do.
Ilr-1591 ¹	Wellton-Mohawk irrigation and drainage district.	(²).....	Mar. 4, 1952	
14-06-W-102 ¹	Yuma-Mesa irrigation and drainage district.	(³).....	May 26, 1956	Do.
14-06-300-44 ¹	Unit B irrigation and drainage district.	(⁴).....	Dec. 22, 1952	Do.

¹ Repayment contracts.² As required for full development of the Wellton-Mohawk division of the Gila project.³ As required for full development of the Yuma-Mesa division of the Gila project.⁴ As required for full development of the Yuma auxiliary project.

Payout study

Fiscal year	Net revenue	Investment repayment from power revenues						Contributions and nonreimbursable features	Earned surplus, cumulative	Allowable unpaid balance	
		Interest-bearing allocation to commercial electric plant				Interest-free aid to irrigation				Interest bearing	Interest free
		Interest, 3 percent	Principal	In service at end of year	Balance to be repaid	Required aid	Balance to be repaid				
Through 1942											
1943	\$182,898	\$242,465	\$(59,567)	\$8,082,176	\$8,141,743			\$11,989,458	0	\$8,082,176	
1944	1,127,388	244,252	883,136	8,339,552	7,515,983	\$698,564	\$698,564	12,324,006	0	8,339,552	\$698,564
1945	1,216,128	225,479	990,649	8,721,600	6,907,382	700,475	700,475	12,324,006	0	8,721,600	700,475
1946	978,202	207,221	770,981	9,003,685	6,418,486	709,869	709,869	12,324,006	0	9,003,685	709,869
1947	936,952	192,555	744,397	12,548,286	9,218,690	709,063	709,063	12,324,006	0	12,548,286	709,063
1948	1,066,939	276,561	790,378	14,067,078	9,947,104	1,095,023	1,095,023	12,324,006	0	14,067,078	1,095,023
1949	1,272,224	298,413	973,811	14,855,696	9,761,911	1,182,704	1,182,704	12,409,000	0	14,855,696	1,182,704
1950	778,943	292,857	486,086	17,938,246	12,358,375	1,430,845	1,430,845	12,409,000	0	17,938,246	1,430,845
1951	795,722	370,751	424,971	90,585,924	84,581,082	11,659,355	11,659,355	13,331,486	0	90,585,924	11,659,355
1952	3,004,548	2,537,432	467,116	93,352,749	86,880,791	22,719,154	22,719,154	13,045,414	0	93,352,749	22,719,154
1953	4,923,523	2,606,424	2,317,099	97,681,512	88,892,455	24,190,931	24,190,931	13,023,932	0	97,681,512	24,190,931
1954	4,049,972	2,666,774	1,383,198	100,836,073	90,663,818	23,518,730	23,518,730	13,877,131	0	100,836,073	23,518,730
1955	4,353,553	2,719,915	1,633,638	102,798,075	90,992,182	23,717,373	23,717,373	13,914,969	0	102,798,075	23,717,373
1956	3,257,171	2,729,765	527,406	104,979,872	92,646,573	22,309,878	22,309,878	13,890,407	0	104,979,872	22,309,878
1957	3,305,982	2,779,397	526,585	104,757,195	91,897,311	22,341,889	22,341,889	13,914,682	0	104,757,195	22,341,889
Subtotal	31,250,145	18,390,261	12,859,884	104,757,195	91,897,311	22,341,889	22,341,889	13,914,682	0	104,757,195	22,341,889
1958	3,837,020	2,756,919	1,080,101	105,184,064	91,244,079	22,341,889	22,341,889	13,914,682	0	105,184,064	22,341,889
1959	3,928,733	2,737,322	1,191,411	105,393,064	90,261,668	22,341,889	22,341,889	13,914,682	0	105,393,064	22,341,889
1960	3,763,899	2,707,850	1,056,049	105,998,164	89,810,719	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1961	3,787,266	2,694,322	1,092,944	105,998,164	88,717,775	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1962	3,772,414	2,661,533	1,110,881	105,998,164	87,606,894	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1963	4,088,380	2,628,207	1,460,173	105,998,164	86,146,721	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1964	4,351,080	2,584,402	1,766,678	105,998,164	84,380,043	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1965	4,337,031	2,531,401	1,805,630	105,998,164	82,574,413	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1966	4,323,441	2,477,232	1,846,209	105,998,164	80,728,204	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1967	4,309,898	2,421,846	1,888,052	105,998,164	78,840,152	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1968	4,296,308	2,365,205	1,931,103	105,998,164	76,909,049	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1969	4,282,765	2,307,271	1,975,494	105,998,164	74,933,555	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1970	4,269,192	2,248,007	2,021,185	105,998,164	72,912,370	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1971	4,256,152	2,187,371	2,068,781	105,998,164	70,843,589	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1972	4,243,142	2,125,308	2,117,834	105,998,164	68,725,755	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1973	4,230,119	2,061,773	2,168,346	105,998,164	66,557,409	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1974	4,217,126	1,996,722	2,220,404	105,998,164	64,337,005	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1975	4,204,042	1,930,110	2,273,932	105,998,164	62,063,073	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1976	4,189,905	1,861,892	2,328,013	105,998,164	59,735,060	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1977	4,175,721	1,792,052	2,383,669	105,998,164	57,351,391	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1978	4,161,584	1,720,542	2,441,042	105,998,164	54,910,349	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1979	4,147,417	1,647,310	2,500,107	105,998,164	52,410,242	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1980	4,133,302	1,572,307	2,560,995	105,998,164	49,849,247	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1981	4,125,066	1,495,477	2,629,589	105,998,164	47,219,658	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1982	4,116,817	1,416,590	2,700,227	105,998,164	44,519,431	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1983	4,108,551	1,335,583	2,772,968	105,998,164	41,746,463	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1984	4,100,332	1,252,394	2,847,938	105,998,164	38,898,525	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1985	4,092,066	1,166,956	2,925,110	105,998,164	35,973,415	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1986	4,083,847	1,079,202	3,004,645	105,998,164	32,968,770	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1987	4,075,581	989,063	3,086,518	105,998,164	29,882,252	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1988	4,067,332	896,468	3,170,864	105,998,164	26,711,388	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1989	4,059,113	801,342	3,257,771	105,998,164	23,453,617	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1990	4,050,877	703,609	3,347,268	105,998,164	20,106,349	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1991	4,042,628	603,190	3,439,438	105,998,164	16,666,911	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1992	4,034,362	500,007	3,534,355	105,998,164	13,132,556	22,341,889	22,341,889	13,914,682	0	105,998,164	22,341,889
1993	4,026,143	393,977	3,632,166	105,998,164	9,500,390	22,341,889	22,341,889	13,914,682	0	97,915,988	22,341,889
1994	4,017,877	285,012	3,732,865	105,998,164	5,767,525	22,341,889	22,341,889	13,914,682	0	97,658,612	21,643,325
1995	4,009,658	173,026	3,836,632	105,998,164	1,930,893	22,341,889	22,341,889	13,914,682	0	97,276,564	21,641,414
1996	4,001,439	57,927	1,930,893	105,998,164	0	22,341,889	20,329,270	13,914,682	0	96,994,479	21,632,020
1997	3,993,190	0	0	105,998,164	0	22,341,889	16,336,080	13,914,682	0	93,449,878	21,632,826
1998	3,984,924	0	0	105,998,164	0	22,341,889	12,351,156	13,914,682	0	91,931,086	21,246,866
1999	3,976,735	0	0	105,998,164	0	22,341,889	8,374,421	13,914,682	0	91,142,468	21,159,185
2000	3,968,439	0	0	105,998,164	0	22,341,889	4,405,982	13,914,682	0	88,059,918	20,911,044
2001	3,960,220	0	0	105,998,164	0	22,341,889	445,762	13,914,682	0	15,412,240	10,682,534
2002	3,951,954	0	0	105,998,164	0	22,341,889	0	13,914,682	\$3,506,192	12,645,415	0
2003	3,943,735	0	0	105,998,164	0	22,341,889	0	13,914,682	7,449,927	8,316,652	0
2004	3,935,469	0	0	105,998,164	0	22,341,889	0	13,914,682	11,385,396	5,162,091	0
2005	3,927,250	0	0	105,998,164	0	22,341,889	0	13,914,682	15,312,646	3,200,089	0
2006	3,918,984	0	0	105,998,164	0	22,341,889	0	13,914,682	19,231,630	1,018,292	0
2007	3,910,718	0	0	105,998,164	0	22,341,889	0	13,914,682	23,142,348	1,240,969	0
Total	235,039,389	83,556,988	105,998,164	105,998,164	0	22,341,889	0	13,914,682	23,142,348		0

PINE RIVER PROJECT

IGNACIO, COLO.

The Pine River project, located in La Plata and Archuleta Counties in southwestern Colorado, was approved for construction by the President June 17, 1937, under provisions of section 4 of the act of June 25, 1910 (36 Stat. 835) and subsection B of section 4 of the act of December 5, 1924 (43 Stat. 702).

The project works consist of Vallecito Dam and Reservoir, constructed to provide supplemental irrigation water for 34,000 acres and a new supply to 35,000 acres of project lands in both white and Indian ownership.

The total estimated cost of the project was \$3,469,877 on June 30, 1957. A contract was executed with the Pine River irrigation district and a memorandum of understanding with the Bureau of Indian Affairs for repayment of the reimbursable cost.

The allocation and repayment of costs:

Total estimated project cost.....	\$3, 469, 877
Allocation:	
Reimbursable costs: Irrigation.....	1, 521, 351
Nonreimbursable: Flood control.....	1, 948, 526
Total.....	3, 469, 877
Repayment of reimbursable costs:	
From Pine River irrigation district.....	1, 250, 000
From Bureau of Indian Affairs.....	250, 000
From contributions and miscellaneous revenues.....	25, 566
Total.....	¹ 1, 525, 566

¹ Includes \$4,215 of operation and maintenance charges funded.

The features constructed by the United States are being operated by the Bureau of Reclamation with funds advanced by the water users.

Repayment contracts.—The original repayment

contract Ilr-1204 was signed by the Pine River irrigation district April 15, 1940. The contract provided that the district and the Bureau of Indian Affairs would share in repaying reimbursable project costs. By amendatory contract dated November 30, 1953, the reimbursable cost was established at \$1,500,000, with five-sixths, or \$1,250,000, to be paid by the district and one-sixth, or \$250,000, to be paid by the Bureau of Indian Affairs. Execution of this contract was authorized by Public Law 533, 83d Congress, on July 27, 1954 (68 Stat. 534).

CONTRACTS

- 1940, January 3: Memorandum of understanding between the Bureau of Reclamation and the Office of Indian Affairs relating to cooperative use and operation of the Vallecito Reservoir. Repayment of one-sixth of the reimbursable construction cost of irrigation features which may be made in two equal installments if appropriations by Congress permit.
- 1940, April 15: Contract Ilr-1204 with Pine River irrigation district for five-sixths of the reimbursable construction cost of irrigation features. Repayment to be made in 38 consecutive annual installments commencing in 1944, the first 10 installments at 1½ percent, the second 10 at 2½ percent, and the next 18 at 3½ percent of the amount payable by the district.
- 1953, November 30: Amendatory contract Ilr-1161 approved by the act of July 27, 1954 (68 Stat. 534), provides for the district's unpaid repayment obligation to be paid in 30 annual installments with the option of paying under a variable plan based on price indices as described in contract.

The summary of status of repayment contracts:

Total value of amendatory repayment contract and memorandum of understanding..	\$1, 500, 000
Total matured charges.....	329, 180
Total matured charges repaid.....	329, 180
Total matured charges unpaid.....	0

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative
1941-----	¹ \$2, 300, 000							
1942-----	2, 300, 000							
1943-----	2, 300, 000							
1944-----	² 1, 844, 460	\$23, 056		\$23, 056	\$18, 750		\$18, 750	\$18, 750
1945-----	1, 844, 460	23, 056		23, 056	18, 750		18, 750	37, 500
1946-----	1, 844, 460	23, 056		23, 056	18, 750		18, 750	56, 250
1947-----	1, 844, 460	23, 056		23, 056	18, 750		18, 750	75, 000
1948-----	1, 844, 460	23, 056		23, 056	18, 750		18, 750	93, 750
1949-----	1, 844, 460	23, 056		23, 056	18, 750		18, 750	112, 500
1950-----	1, 844, 460	23, 056		23, 056	18, 750		18, 750	131, 250
1951-----	1, 844, 460	23, 055		23, 055	18, 750		18, 750	150, 000
1952-----	1, 844, 460	23, 055		23, 055	18, 750		18, 750	168, 750
1953-----	1, 844, 460	18, 750		18, 750	18, 750		18, 750	187, 500
1954-----	³ 1, 250, 000	35, 420	⁴ \$38, 752	-3, 332	35, 420		35, 420	222, 920
1955-----	1, 250, 000	35, 420		35, 420	35, 420		35, 420	258, 340
1956-----	1, 250, 000	35, 420		35, 420	35, 420		35, 420	293, 760
1957-----	1, 250, 000	35, 420		35, 420	35, 420		35, 420	329, 180
Total-----		367, 932	-38, 752	329, 180	329, 180		329, 180	
Collected-----				329, 180				
Uncollected-----				0				

¹ Excludes obligation of \$307,410 to be paid by the Office of Indian Affairs.² Obligation reduced in accordance with Secretary's provisional notice.

Final amount to be repaid subject to negotiation with water users.

³ Repayment obligation of Pine River Irrigation district, as established by

act of July 27, 1954 (68 Stat. 534), excludes \$250,000 to be paid by Bureau of Indian Affairs.

⁴ Unpaid accruals through fiscal year 1954 funded under provisions of contract dated Nov. 30, 1953.*Operation and maintenance assessments history*

Fiscal year	Accruals	Collections
1943-----	\$5, 000	\$850
1944-----	2, 500	6, 650
1945-----	3, 000	3, 000
1946-----	4, 200	4, 200
1947-----	4, 800	4, 800
1948-----	4, 800	4, 800
1949-----	4, 800	4, 800
1950-----	5, 400	5, 400
1951-----	4, 800	4, 800
1952-----	4, 800	4, 800
1953-----	5, 800	5, 800
1954-----	7, 800	7, 800
1955-----	2, 100	2, 100
1956-----	6, 000	6, 000
1957-----	6, 000	6, 000
Total-----	71, 800	71, 800

PRESTON BENCH PROJECT

PRESTON, IDAHO

The construction of the Preston Bench project in Franklin County, Idaho, was authorized by act of June 15, 1948 (62 Stat. 442).

The project was developed to preserve the water supply of the project area. The project features include the diversion dam, Mink Creek Canal, and Station Creek tunnel.

The total cost of constructing the project was \$449,554. The project cost is repayable under the terms of the repayment contract with the Preston, Riverdale & Mink Creek Canal Co.

Operation and maintenance of the project was transferred to the Preston, Riverdale & Mink Creek Canal Co. on July 1, 1951.

Repayment contract.—The Preston, Riverdale & Mink Creek Canal Co. repayment contract Ir-1520 signed August 31, 1948, provides for the payment of the construction cost in 64 equal

annual installments following a 10-year deferment period, during which the company is to pay off other obligations due the United States through the Department of Agriculture. The deferment period is scheduled to end December 31, 1961.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$453, 000
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

The allocation and repayment of costs:

Total project cost.....	\$450, 100
Allocation of reimbursable costs: Irrigation....	450, 100
Repayment of reimbursable costs from irrigation water users.....	450, 100
Funded charges.....	200
Adjustments pending.....	2, 700
<hr/>	
Total repayment contract.....	453, 000

PROVO RIVER PROJECT

PROVO, UTAH

The construction of the Provo River project in Utah, Salt Lake, Summit, and Wasatch Counties, Utah, was initiated under the provisions of the National Industrial Recovery Act of 1933, and approved by the President on November 16, 1935, under the terms of subsection B of section 4 of the act of December 5, 1924 (43 Stat. 701). Construction of the Salt Lake aqueduct as a part of the project was approved by the President on October 24, 1938. Deer Creek powerplant was authorized by the Secretary's finding of feasibility on August 20, 1951, under the provisions of section 9 of the Reclamation Project Act of 1939 (53 Stat. 1187).

The original project was planned to furnish supplemental water for approximately 85,000 acres of land and for municipal, industrial, and other purposes. Project features include the Deer Creek Dam, Reservoir, and Powerplant (5,000-kilowatts), enlarged Weber-Provo diversion canal, Duchesne tunnel, Provo River channel revision, enlarged Provo Reservoir canal, Jordan Narrows siphon, Salt Lake aqueduct, and Terminal Reservoir. The original project consisted of the Deer Creek division, the Aqueduct division, and the Utah Lake division. No construction work has been done on the latter and it is anticipated that this division will be made a part of the Central Utah project (ultimate phase).

Statutory debt limitation provisions of Utah law were largely responsible for the special Federal legislation on reimbursement of the costs of the Provo River project.

AQUEDUCT DIVISION

The total estimated cost of constructing the Aqueduct division features is \$12,869,252, which has been allocated to municipal and industrial water. The entire amount is repayable under the provisions of contracts with the Metropolitan water district of Salt Lake City.

The aqueduct was transferred to the district for operation and maintenance on May 1, 1951. The Terminal Reservoir was transferred to the district for operation and maintenance on April 1, 1952.

CONTRACTS

- 1938, November 16: Contract Ilr-1074 with Metropolitan water district of Salt Lake City for repayment of construction cost obligation in 40 annual installments. (Repayment obligation—\$5,550,000.)
- 1946, December 13: Supplemental contract Ilr-1074 with Metropolitan water district of Salt Lake City for repayment of increased costs in 40 annual installments. (Increased repayment obligation to \$8,043,650.)
- 1949, February 7: Supplemental contract with Metropolitan water district of Salt Lake City for repayment of construction obligation in excess of \$8,043,650 in accordance with Public Law 462, 80th Congress, 2d session (ch. 159, 62 Stat. 92). These increased construction costs will be paid in 15 consecutive annual installments, the first of which was made in fiscal year 1952.

The summary of status of Aqueduct division repayment contracts:

Total value of contracted repayment.....	\$12, 849, 242
Total matured charges.....	2, 060, 000
Total matured charges repaid.....	2, 060, 000
Total matured charges unpaid.....	0

DEER CREEK DIVISION

The total estimated cost of constructing the Deer Creek division features is \$21,092,905, excluding \$105,172 for operation and maintenance costs during construction. The entire irrigation investment is repayable under the terms of the contracts with the Provo River Water Users Association. The Deer Creek powerplant, a 5,000-kilowatt 2-unit plant, is under construction. The estimated construction cost is \$1,025,000 and is reimbursable from power revenues. The investment in power facilities will be repaid from power revenues within a 50-year period.

All features of the Deer Creek division, except the Deer Creek Dam and powerplant reservoir outlet and other appurtenant works, have been turned over to the Provo River Water Users Association for operation and maintenance by notices dated: May 2, 1952, January 30, 1953, February 20, 1953, January 8, 1954, and March 1, 1956.

The cost has been allocated as follows:

Irrigation (basis 42,500 shares Provo Water Users Association stock)-----	\$8, 528, 860
Commercial power-----	1, 025, 000
Municipal water (basis 57,500 shares Provo River Water Users Association stock)-----	11, 539, 045
Total-----	21, 092, 905

Repayment contracts.—The original Provo River Water Users Association repayment contract was signed June 27, 1936. A supplemental contract dated December 20, 1946, increased the contract obligation from \$7,600,000 to \$11,400,000, to be repaid in 40 years. Supplemental contract dated February 2, 1949 (authorized by Public Law 462, 80th Cong., 2d sess.) provides for the payment of Deer Creek division costs in excess of \$11,400,000, to be repaid on a water rental basis before the repayment provisions of supplemental contract dated December 20, 1946, would become effective.

The Provo River Water Users Association is under contract to repay the full costs of the Deer Creek division, estimated at \$20,067,905. Deer Creek powerplant costs estimated at \$1,025,000 are to be repaid from power revenues. Net power revenues will then be available for application to Deer Creek division costs. Of the total obligations, \$11,400,000 is to be repaid in 40 years under the provisions of the 1937 and 1946 repayment contracts. However, before those payments begin, the association is required to make water rental payments for a sufficient number of years under the 1949 contract to return the construction costs in excess of \$11,400,000. This excess is currently estimated at \$8,203,914, with repayment thereof now contemplated in about 35 years. Then repayments begin on the repayment obligation of \$11,400,000. Total payout period is thus contemplated at 75 years.

CONTRACTS

1936, June 27, symbol Ilr-873: Contract with Provo River Water Users Association for repayment of construction obligation in 40 annual installments. (Repayment obligation—\$7,600,000.)

1937, July 3, symbol Ilr-874: Supplemental contract with Provo River Water Users Association amended certain contract articles.

1938, December 20, symbol Ilr-1082: Contract with Provo River Water Users Association, Utah Power & Light Co., and the Utah Light & Traction Co. regarding effect of adjustments in Provo and Weber Rivers' stream flows on power companies' power production.

1938, December 20, symbol Ilr-1083: Contract with the Provo River Water Users Association and Weber River Water Users Association transferring management, operation and maintenance, and appropriate construction costs of the Weber-Provo diversion canal to the Deer Creek division, Provo River project.

1939, October 28, symbol Ilr-1182, and 1939, November 28, symbol 1180: Contracts with Provo River Water Users Association and Provo Reservoir Water Users Co. regarding the enlargement of the Provo Reservoir canal.

1946, December 20, symbol Ilr-874: Supplemental contract with Provo River Water Users Association for repayment of increased costs in 40 annual installments. (Increased repayment obligation to \$11,400,000.)

1949, February 2, symbol Ilr-874: Supplemental contract with Provo River Water Users Association relating to repayment of construction obligation in excess of \$11,400,000 in accordance with Public Law 462, 80th Congress, 2d session.

1949, April 12; 1950, April 24; 1951, March 9: Annual water rental contracts with Provo River Water Users Association.

1952, January 31: Letter notice, water rental charges for 1952 irrigation season.

The summary of status of the Deer Creek division repayment contracts:

Total value of contracted repayment-----	\$19, 287, 645
Total matured charges-----	1, 359, 305
Total matured charges repaid-----	1, 359, 305
Total matured charges unpaid-----	0

The allocation and repayment of costs:

Total estimated project cost-----	34, 020, 266
-----------------------------------	--------------

The allocation of costs:

Reimbursable costs:

Irrigation-----	¹ \$8, 528, 860
Municipal-----	24, 408, 072
Power-----	1, 025, 000

Subtotal----- ¹ 33, 961, 932

Nonreimbursable: Irrigation—CCC costs___ 58, 334

Total----- ¹ 34, 020, 266

¹ Excludes \$105,172 for operation and maintenance during construction.

Repayment of reimbursable costs: Reim-
 bursable cost of plant features----- \$33,961,932
 Add: Other charges funded----- \$105,172
 Less: Contributions and miscel-
 laneous revenues----- 90,239 14,933
 Reimbursable obligation----- 33,976,865

Repayment from:
 Power revenues----- \$1,025,000
 Provo River Water Users Association-- 19,287,645
 Increase for future work----- 814,978
 Metropolitan Water District of Salt
 Lake City----- 12,849,242
 Total----- 33,976,865

Construction repayment history

AQUEDUCT DIVISION

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjust- ments	Total	Cumulative total
1946-----	\$5,550,000							
1947-----	8,043,650							
1948-----	8,043,650							
1949-----	8,043,650							
1950-----	11,067,527							
1951-----	11,077,319	\$200,000		\$200,000	\$200,000		\$200,000	\$200,000
1952-----	12,846,289	310,000		310,000	310,000		310,000	510,000
1953-----	12,878,635	310,000		310,000	310,000		310,000	820,000
1954-----	12,871,036	310,000		310,000	310,000		310,000	1,130,000
1955-----	12,869,262	310,000		310,000	310,000		310,000	1,440,000
1956-----	12,869,252	310,000		310,000	310,000		310,000	1,750,000
1957-----	12,849,242	310,000		310,000	310,000		310,000	2,060,000
Total-----		2,060,000		2,060,000	2,060,000		2,060,000	
Collected-----				2,060,000				
Uncollected-----				0				

DEER CREEK DIVISION

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjust- ments	Total	Cumulative total
1947-----	\$7,600,000							
1948-----	11,400,000							
1949-----	11,400,000							
1950-----	11,552,446							
1951-----	14,341,366							
1952-----	16,726,281	\$207,667		\$207,667	\$207,667		\$207,667	\$207,667
1953-----	18,961,316	179,918		179,918	179,918		179,918	387,585
1954-----	19,069,783	287,320		287,320	287,320		287,320	674,905
1955-----	19,230,033	255,200		255,200	255,200		255,200	930,105
1956-----	19,324,304	231,800		231,800	231,800		231,800	1,161,905
1957-----	19,287,645	197,400		197,400	197,400		197,400	1,359,305
Total-----		1,359,305		1,359,305	1,359,305		1,359,305	
Collected-----				1,359,305				
Uncollected-----				0				

RAPID VALLEY PROJECT

RAPID CITY, S. DAK.

Construction of Rapid Valley project (Deerfield Dam) in Pennington County, S. Dak., was authorized by the President on November 8, 1939, under provisions of the Great Plains Act of May 10, 1939 (43 Stat. 685), and again by the President on October 25, 1940, under provisions of act of August 11, 1939 (53 Stat. 1418, amended). A revised plan was approved by the President on June 5, 1942. After limitation of construction in December 1942 by the War Production Board, continuation of the Deerfield unit was approved by the President on November 22, 1943.

The purpose of the dam and reservoir is to supply municipal water for Rapid City, S. Dak., and a supplemental water supply for approximately 8,900 acres of irrigable land in the Rapid Valley conservancy district located along Rapid Creek downstream from Rapid City in Pennington County. Rapid City has a senior priority to 7,000 acre-feet of active storage and the Rapid Valley conservancy district has a junior right to the remaining 8,100 acre-feet of active storage in the reservoir. Deerfield Dam is an earth and rockfill structure 133 feet high and 825 feet long, with total storage capacity of 15,700 acre-feet, of which 600 acre-feet is dead storage and 15,100 acre-feet is active conservation storage. Water is delivered and paid for at the outlet works of Deerfield Dam. Initial water delivery was in 1946. Diversion of water by the conservancy district is accomplished through the use of existing ditches owned and operated by individual ditch companies. Rapid City diverts its water into the municipal water supply system at a pumping plant located on Rapid Creek near the city limits.

The total cost of the dam and reservoir is \$920,224.

Deerfield Dam and Reservoir is operated by the United States Government with funds advanced by Rapid City.

Repayment contracts.—The municipality of Rapid City, S. Dak., has contracted with the United States for repayment of \$500,000 toward the construction cost of Deerfield Dam and Reservoir. The Contract with the municipality of Rapid City is a repayment type and provides for payment of \$12,500 annually for a 40-year period. The city has made 10 payments, or a total of \$125,000, toward retiring their obligation.

The conservancy district has contracted with the United States for repayment of \$600,000 in 40 equal installments for irrigation facilities not yet constructed. In the interim the district pays at the rate of \$1 per acre-foot of water delivered from Deerfield Dam for irrigation. These payments are cumulated and, if additional works are constructed, shall first be applied to payment of the cost of the irrigation works and second be applied to the cost of Deerfield Dam which is not covered by the repayment obligations of Rapid City. If additional works are not built, the entire payments received will be applied to the cost of the dam.

The conservancy district has paid \$5,401.50 to the United States for water received under the contract.

CONTRACTS

- 1943, July 27: Contract Ilr-1413 with city of Rapid City, S. Dak., for \$500,000 toward the construction cost of Deerfield Dam and Reservoir. Repayable in 40 equal annual installments of \$12,500 due on or before May 1 of each year.
- 1943, July 27: Contract Ilr-1413 with Rapid Valley water conservancy district for \$600,000 for repayment of irrigation facilities to be constructed.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$1, 100, 000
Total matured charges.....	125, 000
Total matured charges repaid.....	125, 000
Total matured charges unpaid.....	0

Construction repayment history

Fiscal year	Total obligation	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1948-----	\$1, 100, 000	\$12, 500	-----	\$12, 500	\$12, 500	-----	\$12, 500	\$12, 500
1949-----	1, 100, 000	12, 500	-----	12, 500	12, 500	-----	12, 500	25, 000
1950-----	1, 100, 000	12, 500	-----	12, 500	12, 500	-----	12, 500	37, 500
1951-----	1, 100, 000	12, 500	-----	12, 500	12, 500	-----	12, 500	50, 000
1952-----	1, 100, 000	12, 500	-----	12, 500	12, 500	-----	12, 500	62, 500
1953-----	1, 100, 000	12, 500	-----	12, 500	12, 500	-----	12, 500	75, 000
1954-----	1, 100, 000	12, 500	-----	12, 500	12, 500	-----	12, 500	87, 500
1955-----	1, 100, 000	12, 500	-----	12, 500	12, 500	-----	12, 500	100, 000
1956-----	1, 100, 000	12, 500	-----	12, 500	12, 500	-----	12, 500	112, 500
1957-----	1, 100, 000	12, 500	-----	12, 500	12, 500	-----	12, 500	125, 000
Total-----	-----	125, 000	-----	125, 000	125, 000	-----	125, 000	-----
Collected-----	-----	-----	-----	125, 000	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	0	-----	-----	-----	-----

RATHDRUM PRAIRIE PROJECT

COEUR D'ALENE, IDAHO

A number of investigations have been made for irrigation development of the Rathdrum Prairie area, a triangular body of land northwest of Coeur d'Alene, Idaho. Although no complete irrigation system has been constructed to serve the area, small parts have been irrigated through private development. Construction work by the Bureau has involved rehabilitation of facilities for the Hayden Lake and Post Falls irrigation districts as units of the greater Rathdrum Prairie area.

Construction of temporary water service facilities for the Post Falls unit was authorized by the President on January 29, 1944, under terms of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended. Work on the Hayden Lake unit was authorized by the Secretary of the Interior on June 9, 1947. Additional emergency rehabilitation work was authorized by the 1957 Public Works Appropriation Act of July 2, 1956 (70 Stat. 474). Construction began on the Post Falls unit on March 26, 1945, and on the Hayden Lake unit on May 18, 1948.

Work on the Post Falls unit provided irrigation water for about 3,500 acres, which had been partially irrigated since 1910, by construction of a pumping plant on Spokane River and rehabilitation of the distribution system. Rehabilitation of the Hayden Lake unit, part of which had been irrigated since 1906, involved replacement of 8,600 feet of the main discharge line and overhauling of the pumping equipment which lifts water from Hayden Lake to irrigate about 1,050 acres.

Major facilities of the Post Falls unit consist of 2 pumps, each capable of delivering 30 cubic feet per second, 3,000 feet of wood-stave discharge pipe, 7 miles of main canal, 4 miles of open laterals,

and 14,500 feet of concrete and wood-stave pipe laterals.

POST FALLS UNIT

Total construction cost of this unit is \$363,951, of which \$190,000 is reimbursable and \$173,951 is nonreimbursable under provisions of the Water Conservation and Utilization Act. Operation and maintenance of the irrigation facilities was turned over to the Post Falls irrigation district at the beginning of the 1949 irrigation season. Costs are financed by assessments of water users. The United States pays the costs of pumping power secured from a private utility, using funds advanced by the district.

Repayment contracts.—The repayment contract with the district, dated January 11, 1945, provides for repayment of \$190,000 in 40 equal annual installments of \$4,750 each. A 3-year development period began January 1, 1946, and ended December 31, 1948. Development period accruals and collections for the period 1946–48 were \$6,913, \$10,864, and \$11,661, respectively.

Construction repayment installments began in 1950 and will continue through 1989.

PUBLIC NOTICES AND CONTRACTS

- 1945, January 11: Contract Ilr-1433 with Post Falls irrigation district. To repay \$190,000 for irrigation construction in 40 annual payments of \$4,750.
- 1948, June 25: Department notice announcing end of development period, effective date of district assuming operation and maintenance and date of first payment on construction obligation.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$190,000
Total matured charges.....	38,000
Total matured charges repaid.....	38,000
Total matured charges unpaid.....	0

Construction repayment history—Post Falls unit

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative Total
1950 -----	\$190, 000	\$4, 750	-----	\$4, 750	\$4, 750	-----	\$4, 750	\$4, 750
1951 -----	190, 000	4, 750	-----	4, 750	4, 750	-----	4, 750	9, 500
1952 -----	190, 000	4, 750	-----	4, 750	4, 750	-----	4, 750	14, 250
1953 -----	190, 000	4, 750	-----	4, 750	4, 750	-----	4, 750	19, 000
1954 -----	190, 000	4, 750	-----	4, 750	4, 750	-----	4, 750	23, 750
1955 -----	190, 000	4, 750	-----	4, 750	4, 750	-----	4, 750	28, 500
1956 -----	190, 000	4, 750	-----	4, 750	4, 750	-----	4, 750	33, 250
1957 -----	190, 000	4, 750	-----	4, 750	4, 750	-----	4, 750	38, 000
Total -----		38, 000	-----	38, 000	38, 000	-----	38, 000	-----
Collected -----			-----	38, 000		-----		-----
Uncollected -----			-----	0		-----		-----

HAYDEN LAKE UNIT

Construction cost of this unit under the 1949 repayment contract totals \$118,409, all of which is reimbursable by the water users. Operation and maintenance of the irrigation system was retained by the district during construction, and the district continues to operate the system. Costs are financed by assessments of water users. Additional construction work now under way is estimated to cost \$547,500.

Repayment contracts: The repayment contract with the district, dated February 16, 1949, provided for repayment of a maximum construction obligation of \$125,000. Actual cost has been determined to be \$118,409. The 2-year development period began on January 1, 1951, and ended on December 31, 1952. An initial payment toward construction costs in the amount of \$17,850 was made at the time the contract with the district was executed. Regular annual installments began in 1954 and will continue through 1993.

Repayment contract 14-06-100-1182 dated April 20, 1957, for additional work to the irrigation system provides for a maximum construction obligation of 547,500 to be adjusted to the actual cost upon completion of work. Repayment to be made in 50 years commencing upon expiration of a 3-year development period. The development period will begin when work is substantially completed.

PUBLIC NOTICES AND CONTRACTS

1949, February 16: Contract 11r-1527 with Hayden Lake irrigation district. To repay in 40 equal annual installments an obligation of \$125,000 (adjusted to cost of \$100,559, excluding initial payment of \$17,850.)

1950, December 29: Department notice announcing cost of project, development period, and date of initial installment on construction obligation.

1951, November 5: Department notice of actual construction cost.

1957, April 20: Contract No. 14-06-100-1182 with Hayden Lake irrigation district. To repay in 50 annual installments a maximum obligation of \$547,500.

The summary of status of repayment contracts:

Total value of contracted repayment -----	\$665, 909
Total matured charges -----	27, 906
Total matured charges repaid -----	27, 906
Total matured charges unpaid -----	0

The summary of allocation and repayment of costs for both the Post Falls and Hayden Lake units:

Total project cost -----	\$1, 029, 860
--------------------------	---------------

Allocation:

Reimbursable costs: Irrigation -----	855, 909
Nonreimbursable costs: Irrigation—act of August 11, 1939 (53 Stat. 1418) ---	173, 951
Total -----	1, 029, 860
Repayment of reimbursable costs:	
From irrigation water users -----	855, 909

RECLAMATION REPAYMENTS

Construction repayment history—Hayden Lake unit

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1949	\$125, 000	\$17, 850		\$17, 850	\$17, 850		\$17, 850	\$17, 850
1950	125, 000							17, 850
1951	118, 409							17, 850
1952	118, 409							17, 850
1953	118, 409							17, 850
1954	118, 409	2, 514		2, 514	2, 514		2, 514	20, 364
1955	118, 409	2, 514		2, 514	2, 514		2, 514	22, 878
1956	118, 409	2, 514		2, 514	2, 514		2, 514	25, 392
1957	665, 909	2, 514		2, 514	2, 514		2, 514	27, 906
Total		27, 906		27, 906	27, 906		27, 906	
Collected				27, 906				
Uncollected				0				

RIO GRANDE PROJECT

NEW MEXICO-TEXAS

The construction of the Leasburg diversion dam in New Mexico for the Rio Grande project was authorized by the Secretary of the Interior December 2, 1905, under the provisions of the Reclamation Act, and funds were allocated to initiate construction of the first diversion unit. The Reclamation Act was extended to Texas June 12, 1906. Congress authorized the construction of Elephant Butte Dam March 4, 1907, at which time \$1,000,000 of nonreimbursable funds were appropriated from the General Treasury as the State Department's share for allocation by treaty of 60,000 acre-feet of water annually to Mexico. Additional project works authorized under more recent congressional action include: Caballo Dam, a combined flood-control and power-regulating structure financed with a \$1,500,000 nonreimbursable allotment transferred from the State Department to the Bureau of Reclamation in accordance with an interdepartmental agreement dated October 9, 1935, and with additional reimbursable allotments made to the Bureau during the period 1936 to 1941; and the Elephant Butte power development for which funds were initially made available under the Interior Department Appropriation Act, fiscal year 1939.

The purposes of the project are to provide irrigation water for lands in the Rio Grande Valley extending approximately 100 miles upstream and 40 miles downstream from the city of El Paso, Tex., and to furnish hydroelectric power in central and south-central New Mexico. The multipurpose features consist of the Elephant Butte Dam and Reservoir with a storage capacity of 2,185,400 acre-feet and Caballo Dam and Reservoir with a storage capacity of 340,850 acre-feet. The irrigation features of the project consist of 6 diversion dams, 147 miles of canals, 443 miles of laterals and 470 miles of operating roads which provide for the irrigation of 178,315 acres. The

power features of the project consist of the Elephant Butte powerplant with a capacity of 24,300 kilowatts, 495 miles of 115-kilovolt transmission lines, 4 miles of 13.8-kilovolt transmission lines, and 14 substations with a combined capacity of 103,750 kilovolt-amperes which serve 3 private utility companies, 6 public-owned utilities, and 2 military defense establishments. The project is required by international treaty to furnish 60,000 acre-feet annually to the Juarez Valley, Republic of Mexico, and has a Warren Act contract covering excess and waste waters with the Hudspeth County conservation and reclamation district No. 1, Hudspeth County, Tex., which has an irrigable area of approximately 19,000 acres.

The project is divided into the Irrigation division and the Elephant Butte power and storage division, which are discussed separately below.

IRRIGATION DIVISION

There are two contracting entities in the Irrigation division, namely: the Elephant Butte irrigation district covering the lands in the State of New Mexico, and the El Paso County water improvement district No. 1 covering the lands in the State of Texas.

The total cost of construction chargeable to the Elephant Butte irrigation district is \$5,606,717. This amount, with exception of the congressional chargeoff, revenues, contributions, and other miscellaneous cost deductions totaling \$158,678, is repayable under the terms of the repayment contract with the Elephant Butte irrigation district. The repayment contract also covers funded charges in the amount of \$249,973. Operation and maintenance of the irrigation system is performed by the Bureau of Reclamation, with funds advanced by the district.

Repayment contracts.—The original contract, dated June 27, 1906, was between the United

States and the Elephant Butte Water Users Association. By contract dated June 15, 1918, the Elephant Butte irrigation district assumed the obligations of the Elephant Butte Water Users Association, which included cost of the irrigation facilities in the State of New Mexico and a portion of the cost of Elephant Butte Dam. By contract dated November 9, 1937, in accordance with the terms of the Appropriation Act of 1938, the district was relieved from repayment of the cost of Elephant Butte Dam in return for relinquishment of its interest in power development. By contract dated October 1, 1939, in accordance with terms of the Reclamation Act of 1939, repayment charges were spread over 40 years from date first installment became due under the original contract.

Secretary's notices have been issued to the district annually since December 1920.

CONTRACTS

- 1906, June 27: Original contract for project construction. Joint contract between United States and Elephant Butte Water Users Association, El Paso Valley Water Users Association.
- 1917, July 6: Advancement of funds for drainage construction, contract with Elephant Butte Water Users Association pending formation of irrigation district.
- 1918, June 15: Contract Ilr-349 for construction of drainage works and works for distribution and delivery of irrigation water, repayment of construction and operation and maintenance charges. United States of America, Elephant Butte Water Users Association, Elephant Butte irrigation district. (Dissolution of Elephant Butte Water Users Association.) Sets construction liability of \$6,530,000.
- 1922, July 1: Assignment to the district of certain water accounts.
- 1924, February 21: Additional construction work. District assumed additional construction obligation of \$940,000.
- 1928, July 16: Amendments to existing contracts for construction repayment. (Fixing charge at \$3.60 per acre.)
- 1929, December 20: Credits for drainage rights-of-way and increased total construction work. District assumed additional construction obligation of \$450,000 and made provision for \$230,000 credit to be applied for drainage rights-of-way to be obtained by district.
- 1937, November 9: Contract Ilr-982 for adjustment of project construction charges and for other purposes (relinquishment of interest in power development and advancement of operation and maintenance funds) reduced construction charges payable in fixed semiannual installments, period of repayment extended to 40 years. Total adjustment reduction \$2,410,864 resulting from relinquishment of power rights. Increased obligation \$188,876 for funded operation and maintenance and interest and penalties. Provided for district to advance funds for operation and maintenance operations.
- 1938, February 16: Providing for a 3-percent cushion on the irrigable area of the Rio Grande reclamation project as allocated to the districts. Elephant Butte irrigation district, El Paso County water-improvement district No. 1.
- 1939, February 2: Construction of additional work with contributed funds and providing for crediting of certain revenues (storage charges).
- 1939, August 30: Amending and supplementing contract dated December 20, 1929, relating to credits on account of drainage rights-of-way (extending credits to statutory rights-of-way). Increased credit applicable to rights-of-way by \$30,000.
- 1939, October 1: Adjusting period for payment of construction charges, repayment period extended to 40 years exclusive of years of moratorium on construction charges, 1931 to 1935, inclusive.
- 1954, October 20: Supplemental contract providing for deferment of construction charges payable in calendar year 1955.
- 1955, September 13: Supplemental contract providing for deferment of construction charges payable in calendar year 1956.

The summary of status of repayment contracts for the Elephant Butte irrigation district:

Total value of contracted repayment.....	\$5,698,012
Total matured charges.....	4,082,119
Total matured charges repaid.....	4,082,119
Total matured charges unpaid.....	0

The total cost of construction chargeable to the El Paso County water improvement district No. 1 is \$4,907,140. This amount, with exception of the congressional chargeoff, revenues, contributions and other miscellaneous cost deductions totaling \$636,685, is repayable under the terms of the repayment contract with the El Paso County water improvement district No. 1. The repayment contract also covers funded charges in the amount of \$175,656.

Repayment contracts.—The original contract dated June 27, 1906, was between the United States and the El Paso Valley Water Users Association. By contract dated January 17, 1920, the El Paso County water improvement district No. 1 assumed the obligations of the El Paso Valley Water Users Association, which included cost of the irrigation facilities in the State of Texas and a portion of the cost of Elephant Butte Dam. By contract dated November 10, 1937, in accordance with terms of the Appropriation Act of 1938, the district was relieved from repayment of the cost of Elephant Butte Dam in return for relinquishment of their interest in power development. By contract dated October 1, 1939, in

Construction repayment history—Elephant Butte irrigation district (New Mexico division)

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior year and adjustments	Total	Cumulative total
1921	\$4,500,000							
1922	4,500,000							
1923	4,500,000	\$45,000		\$45,000	\$44,991		\$44,991	\$44,991
1924	4,500,000	90,000		90,000	90,000	\$9	90,009	135,000
1925	7,470,000	108,000		108,000	108,000		108,000	243,000
1926	7,470,000	131,100		131,100	131,100		131,100	374,100
1927	7,470,000	190,070		190,070	190,070		190,070	564,170
1928	7,470,000	253,440		253,440	253,440		253,440	817,610
1929	7,470,000	269,415		269,415	269,415		269,415	1,087,025
1930	7,920,000	280,125		280,125	280,125		280,125	1,367,150
1931	7,920,000	291,600		291,600	291,600		291,600	1,658,750
1932	7,920,000	¹ 145,032		145,032	103,724		103,724	1,762,474
1933	7,920,000	¹ 73,447	² \$41,308	32,139			0	1,762,474
1934	7,941,560	(¹)	² 73,447	² 73,447			0	1,762,474
1935	7,965,682	(¹)		0			0	1,762,474
1936	7,941,560	(¹)		0			0	1,762,474
1937	7,941,560	(¹)		0			0	1,762,474
1938	³ 5,698,012	230,475		230,475	230,475		230,475	1,992,949
1939	5,698,012	151,351		151,351	151,351		151,351	2,144,300
1940	5,698,012	135,152		135,152	135,152		135,152	2,279,452
1941	5,698,012	124,322		124,322	124,322		124,322	2,403,774
1942	5,698,012	124,322		124,322	124,322		124,322	2,528,096
1943	5,698,012	124,322		124,322	124,322		124,322	2,652,418
1944	5,698,012	124,321		124,321	124,321		124,321	2,776,739
1945	5,698,012	124,322		124,322	124,322		124,322	2,901,061
1946	5,698,012	124,322		124,322	124,322		124,322	3,025,383
1947	5,698,012	124,322		124,322	124,322		124,322	3,149,705
1948	5,698,012	124,322		124,322	124,322		124,322	3,274,027
1949	5,698,012	124,321		124,321	124,321		124,321	3,398,348
1950	5,698,012	124,322		124,322	124,322		124,322	3,522,670
1951	5,698,012	124,322		124,322	124,322		124,322	3,646,992
1952	5,698,012	124,322		124,322	124,322		124,322	3,771,314
1953	5,698,012	124,322		124,322	124,322		124,322	3,895,636
1954	5,698,012	124,322		124,322	124,322		124,322	4,019,958
1955	5,698,012	62,161	(⁴)	62,161	62,161		62,161	4,082,119
1956	5,698,012		(⁴)					4,082,119
1957	5,698,012		(⁴)					4,082,119
Total		4,196,874	-114,755	4,082,119	4,082,110	9	4,082,119	
Collected				4,082,119				
Uncollected				0				

¹ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$43,748; 1931, \$313,382; 1932, \$298,954; 1933, \$289,620; 1934, \$288,900; 1935, \$306,000; 1936, \$154,800.

² Decrease. Decreases cover amounts deferred under moratorium acts.

³ Decrease in obligation due to provisions of 1937 contract.

⁴ Supplemental contracts prepared under Secretary's authority deferring calendar year 1955, 1956, and 1957 installments.

accordance with terms of the Reclamation Act of 1939, repayment charges were spread over 40 years from the date first installment became due under the original contract.

Secretary's notices have been issued to the district annually since December 1920.

CONTRACTS

- 1906, June 27: Original first contract for project construction. Joint contract between United States and Elephant Butte Water Users Association, El Paso Valley Water Users Association.
- 1917, December 29: Construction of drainage works and works for the distribution and delivery of water for irrigation purposes and payment of construction and operation and maintenance charges. United States of America, El Paso Valley Water Users Association, El Paso County water improvement district No. 1 (limited interim contract, superseded by contract dated January 17, 1920).
- 1920, January 17: Contract Ilr-348 for construction of drainage works and works for the distribution and delivery of water for irrigation purposes and payment of construction and operation and maintenance charges. United States of America, El Paso Valley Water Users Association, El Paso County water improvement district No. 1 (dissolution of El Paso Valley Water Users Association). Sets construction liability at \$4,941,000.
- 1922, July 1: Assignment to the district of certain water accounts.
- 1922, October 12: Additional construction work. District assumed additional construction obligation of \$1,165,000.
- 1926, August 2: Construction of additional irrigation works—Riverside canal construction. Funds for construction advanced by district. Construction cost not applicable to repayments as provided by Public Law 264, 69th Congress, act of May 25, 1926.
- 1928, July 16: Amendments to existing contracts for construction repayment (fixing charge at \$3.60 per acre).
- 1929, September 3: Construction of additional drainage works and crediting of certain revenues. Funds advanced by district.
- 1931, June 10: Providing for the irrigation of the United States detention farm, Bureau of Prisons. Inter-

departmental agreement, Department of Justice, Department of the Interior. Approved, El Paso County water improvement district No. 1. Provides for operation and maintenance and construction payments on 400 acres of land by Department of Justice.

- 1932, November 2: Construction of additional drainage works with contributed funds and providing for crediting of revenues (extends contract of September 3, 1929).
- 1937, November 10: Contract Ilr-981 for adjustment of project construction charges and for other purposes (relinquishment of interest in power development and advancement of operation and maintenance funds). Reduced construction charges payable in fixed semi-annual installments, period of repayment extended to 40 years. Total adjusted reduction, \$1,835,544, resulting from relinquishment of power rights. Increased obligation \$175,655 for funded operation and maintenance and interest and penalties. Provided for district to advance funds for operation and maintenance operations.
- 1938, February 16: Providing for a 3-percent cushion on the irrigable area of the Rio Grande reclamation project as allocated to the districts. Elephant Butte irrigation district, El Paso County water improvement district No. 1. Approved, Secretary of the Interior.
- 1939, February 2: Construction of additional works with contributed funds and providing for crediting of certain revenues (storage charges).
- 1939, October 1: Adjusting period for payment of construction charges. (Repayment period extended to 40 years exclusive of years of moratorium on construction charges, 1931 to 1935, inclusive.)
- 1954, October 21: Supplemental contract providing for deferment of construction charges payable in calendar year 1955.
- 1955, September 9: Supplemental contract providing for deferment of construction charges payable in calendar year 1956.

The summary of status of repayment contracts for the El Paso County water improvement district No. 1:

Total value of contracted repayment.....	\$4,446,111
Total matured charges.....	3,160,892
Total matured charges repaid.....	3,160,892
Total matured charges unpaid.....	0

Construction repayment history—El Paso County water improvement district No. 1 (Texas division)

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1921	\$3, 150, 000							
1922	3, 150, 000							
1923	3, 150, 000	\$31, 500		\$31, 500	\$31, 500		\$31, 500	\$31, 500
1924	3, 150, 000	108, 515		108, 515	108, 515		108, 515	140, 015
1925	6, 030, 000	89, 330		89, 330	89, 330		89, 330	229, 345
1926	6, 030, 000	101, 886		101, 886	101, 826		101, 826	331, 171
1927	6, 030, 000	164, 700		164, 700	134, 247		134, 247	465, 418
1928	6, 030, 000	180, 360		180, 360	25, 000	\$30, 453	55, 453	520, 871
1929	6, 030, 000	193, 500		193, 500	25, 000	155, 420	180, 420	701, 291
1930	6, 030, 000	212, 400		212, 400	142, 825	167, 185	310, 010	1, 011, 301
1931	6, 030, 000	211, 860		211, 860	172, 785	70, 890	243, 675	1, 254, 976
1932	6, 066, 000	¹ 36, 000		36, 000	36, 000	39, 075	75, 075	1, 330, 051
1933	6, 039, 311	(¹)		0			0	1, 330, 051
1934	5, 745, 319	(¹)		0			0	1, 330, 051
1935	5, 745, 319	(¹)		0			0	1, 330, 051
1936	5, 737, 319	(¹)		0			0	1, 330, 051
1937	5, 727, 319	¹ 115, 425		115, 425	113, 883		113, 883	1, 443, 934
1938	² 4, 457, 071	60, 177		60, 177	60, 177	1, 542	61, 719	1, 505, 653
1939	4, 457, 071	123, 077		123, 077	123, 077		123, 077	1, 628, 730
1940	4, 457, 071	109, 609		109, 609	109, 609		109, 609	1, 738, 339
1941	4, 457, 071	98, 863		98, 863	98, 863		98, 863	1, 837, 202
1942	4, 457, 071	98, 863		98, 863	98, 863		98, 863	1, 936, 065
1943	4, 457, 071	98, 863		98, 863	98, 863		98, 863	2, 034, 928
1944	4, 457, 071	98, 863		98, 863	98, 863		98, 863	2, 133, 791
1945	4, 457, 071	98, 863		98, 863	98, 863		98, 863	2, 232, 654
1946	4, 457, 071	98, 863		98, 863	98, 863		98, 863	2, 331, 517
1947	4, 457, 071	98, 863		98, 863	98, 863		98, 863	2, 430, 380
1948	4, 457, 071	98, 863		98, 863	98, 863		98, 863	2, 529, 243
1949	4, 457, 071	98, 863		98, 863	98, 863		98, 863	2, 628, 106
1950	4, 457, 071	98, 863		98, 863	98, 863		98, 863	2, 726, 969
1951	4, 457, 071	98, 863		98, 863	98, 863		98, 863	2, 825, 832
1952	³ 4, 446, 111	98, 863	—\$10, 960	87, 903	98, 863	—10, 960	87, 903	2, 913, 735
1953	4, 446, 111	98, 863		98, 863	98, 863		98, 863	3, 012, 598
1954	4, 446, 111	98, 863		98, 863	98, 863		98, 863	3, 111, 461
1955	4, 446, 111	49, 431	(⁴)	49, 431	49, 431		49, 431	3, 160, 892
1956	4, 446, 111		(⁴)					3, 160, 892
1957	4, 446, 111		(⁴)					3, 160, 892
Total		3, 171, 852	—10, 960	3, 160, 892	2, 707, 287	453, 605	3, 160, 892	
Collected				3, 160, 892				
Uncollected				0				

¹ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$221,251; 1932, \$219,403; 1933, \$218,520; 1934, \$221,580; 1935, \$228,780; 1936, \$115,425.

² Decrease in obligation due to provisions of 1937 contract.

³ To remove from El Paso County water improvement district No. 1's accounts an amount of \$10,960, applicable to the Department of Justice, La Tunc prison farm collections of 1931.

⁴ Supplemental contracts prepared under Secretary's authority deferring calendar year 1955, 1956, and 1957 installments.

*Operation and maintenance assessments history—
El Paso County water improvement district No. 1
(Texas)*

Fiscal year	Accruals	Collections
1921		
1922	\$87, 724	\$87, 724
1923	92, 968	92, 968
1924	98, 428	91, 297
1925	96, 997	104, 128
1926	142, 412	100, 000
1927	155, 300	150, 326
1928	164, 628	174, 014
1929	164, 918	180, 000
1930	159, 092	141, 023
1931	162, 200	188, 374
1932	181, 133	142, 201
1933	141, 597	157, 342
1934	121, 785	142, 769
1935	137, 699	136, 866
1936	143, 351	116, 000
1937	144, 412	135, 200
1938	112, 349	166, 761
1939	167, 980	167, 980
1940	135, 625	135, 625
1941	160, 000	160, 000
1942	162, 954	162, 954
1943	166, 000	166, 000
1944	222, 978	222, 616
1945	197, 252	197, 614
1946	240, 000	240, 000
1947	266, 000	266, 000
1948	289, 000	289, 000
1949	345, 000	345, 000
1950	350, 000	350, 000
1951	400, 000	400, 000
1952	405, 000	405, 000
1953	448, 000	448, 000
1954	465, 000	465, 000
1955	419, 540	419, 540
1956	352, 000	352, 000
1957	328, 000	328, 000
Total	7, 827, 322	7, 827, 322

ELEPHANT BUTTE POWER AND STORAGE DIVISION

The total estimated project cost of the Elephant Butte power and storage division is \$16,863,768. Of this total estimated cost, \$14,105,508 is reimbursable. Under terms of contracts signed with both irrigation districts in 1937, the obligation to repay the reimbursable cost of Elephant Butte Dam was transferred from the districts to the Elephant Butte power and storage division.

RIO GRANDE RIVER RECTIFICATION PROJECT

The Rio Grande River rectification project was a project constructed under the direction of the International Boundary and Water Commission of the State Department to rectify the channel of the Rio Grande mainly to stabilize the boundary between the United States and Mexico. The purpose of the Bureau of Reclamation portion of

*Operation and maintenance assessments history—
Elephant Butte irrigation district (New Mexico)*

Fiscal year	Accruals	Collections
1921		
1922	\$145, 000	\$128, 881
1923	63, 386	79, 505
1924	109, 806	109, 806
1925	114, 837	114, 837
1926	139, 702	139, 702
1927	161, 915	161, 915
1928	181, 028	181, 028
1929	189, 709	189, 709
1930	220, 903	186, 960
1931	225, 801	207, 932
1932	190, 470	109, 644
1933	107, 487	184, 825
1934	125, 833	164, 068
1935	126, 283	143, 348
1936	144, 089	144, 089
1937	157, 685	157, 685
1938	195, 944	195, 944
1939	181, 000	181, 000
1940	184, 997	184, 997
1941	182, 035	182, 035
1942	190, 536	190, 536
1943	195, 500	195, 500
1944	248, 470	248, 740
1945	241, 956	241, 956
1946	295, 000	295, 000
1947	337, 000	337, 000
1948	450, 000	450, 000
1949	460, 000	460, 000
1950	521, 500	521, 500
1951	500, 000	500, 000
1952	535, 000	535, 000
1953	566, 000	566, 000
1954	579, 000	579, 000
1955	528, 000	528, 000
1956	426, 207	426, 207
1957	395, 504	395, 504
Total	9, 617, 583	9, 617, 583

the project was to relocate and otherwise make changes in the Rio Grande project irrigation and drainage facilities required in connection with the Rio Grande rectification project of the International Boundary and Water Commission. The project was financed with PWA funds transferred to the Interior Department from the State Department's allotment of such funds for the Rio Grande rectification project.

The work involved alterations to river inlets and outlets in connection with the Rio Grande project irrigation and drainage facilities required by the river rectification work. The work was performed in the period from 1935 to 1938.

The total actual cost of the Bureau of Reclamation portion of the project is \$180,628.23.

The works constructed in connection with Bureau of Reclamation portion of this project are all operated by the United States with funds advanced by the water users.

Major power contracts—Rio Grande project

Customer	Contract number	Contract date ¹	Termination date	Present contract rate of delivery (kilowatts)
City of Truth or Consequences.....	14-06-500-287..	June 7, 1957	Dec. 24, 1961	1,650 F.
Community Public Service Co.....	I78r-33.....	June 1, 1945	Oct. 8, 1961	3,750 NF.
Do.....	14-06-500-164..	Feb. 28, 1955	-----do-----	7,500 NF.
Department of the Air Force, Holloman Air Force Base.....	14-06-500-276..	June 1, 1957	Jan. 8, 1967	1,500 F.
Department of the Army, White Sands Proving Grounds.....	14-06-500-275..	July 1, 1957	-----do-----	1,000 F.
El Paso Electric Co.....	I2r-11199.....	Mar. 16, 1940	Dec. 24, 1960	15,000 kilovolt-ampere NF.
Plains Electric Generation and Transmission Cooperative, Inc.....	I78r-438.....	May 21, 1952	June 30, 1988	2,850 F.
Public Service Co. of New Mexico.....	I2r-12243.....	July 15, 1940	July 15, 1960	2,500 F.
Pooling contract.....	14-06-500-254	Oct. 3, 1956	Nov. 1, 1981	-----
Community Public Service Co.				
El Paso Electric Co.				
Plains Electric Generation & Transmission Cooperative, Inc.				
Public Service Co. of New Mexico.				

¹ Contracts in effect as of October 3, 1957.

F—Firm. NF—Nonfirm.

Allocation and repayment of costs—Rio Grande Project

Item	Total	Allocation			
		Irrigation			Power and storage
		Elephant Butte	El Paso	Other	
Estimated total construction cost.....	\$27, 407, 815	\$5, 606, 717	\$4, 907, 140	\$4, 119, 638	\$12, 774, 320
Operation and maintenance charges funded.....	387, 135	228, 413	158, 722	-----	-----
Interest and penalties funded.....	38, 494	21, 560	16, 934	-----	-----
Total.....	27, 833, 444	5, 856, 690	5, 082, 796	4, 119, 638	12, 774, 320
Cost deductions:					
Contributions.....	330, 064	117, 042	202, 062	-----	10, 960
Plant costs June 30, 1957 financed by irrigation operation and maintenance water users advances.....	113, 732	-----	-----	113, 732	-----
Costs prior to the 1939 repayment contracts covered by miscellaneous revenues.....	47, 744	35, 511	12, 233	-----	-----
Nonreimbursable:					
Servicing Treaty With Mexico.....	1, 000, 000	-----	-----	-----	1, 000, 000
Flood control.....	1, 519, 654	-----	-----	-----	1, 519, 654
Chargeoff by Congress.....	349, 026	4, 125	344, 901	-----	-----
Other nonreimbursable ¹	324, 914	2, 000	77, 489	-----	245, 425
Subtotal.....	3, 685, 134	158, 678	636, 685	113, 732	2, 776, 039
Repayment contracts.....	10, 144, 123	5, 698, 012	4, 446, 111	-----	-----
Power average rate and repayment studies.....	14, 004, 187	-----	-----	4, 005, 906	9, 998, 281
Total payout analysis.....	27, 833, 444	5, 856, 690	5, 082, 796	4, 119, 638	12, 774, 320

¹ Includes the following items:

Franklin Canal fence.....	\$55, 980
Santa Fe R. R. and San Marcial Lake lawsuits.....	222, 516
Substation transferred from AEC.....	22, 909
Civilian Conservation Corps costs.....	23, 500

Total..... 324, 914

RECLAMATION REPAYMENTS

Payout study—Power

Fiscal year	Net operating revenues	Repayment components of new power revenues		Investment repayment from power revenue—plant in service at end of year				Earned surplus (cumulative)
		Interest	Excess over interest	Interest bearing		Interest free		
				Electric plant	Balance to be repaid	Irrigation plant	Balance to be repaid	
1940				\$2, 827, 468	\$2, 827, 468	\$3, 352, 195	\$3, 352, 195	0
1941	\$251, 629	\$84, 824	\$166, 805	3, 432, 922	3, 266, 117	3, 352, 195	3, 352, 195	0
1942	296, 944	97, 984	198, 960	3, 899, 860	3, 534, 095	3, 352, 195	3, 352, 195	0
1943	370, 643	106, 022	264, 621	3, 952, 804	3, 322, 418	3, 352, 195	3, 352, 195	0
1944	363, 947	99, 673	264, 274	4, 067, 794	3, 173, 134	3, 352, 195	3, 352, 195	0
1945	273, 467	95, 194	178, 273	4, 082, 836	3, 009, 903	3, 352, 195	3, 352, 195	0
1946	309, 497	90, 297	219, 200	4, 421, 057	3, 128, 924	3, 352, 195	3, 352, 195	0
1947	217, 673	93, 868	123, 805	4, 769, 099	3, 353, 161	3, 368, 220	3, 368, 220	0
1948	196, 343	100, 535	95, 808	5, 109, 758	3, 598, 012	3, 430, 769	3, 430, 769	0
1949	269, 078	107, 940	161, 138	5, 950, 969	4, 278, 085	3, 430, 769	3, 430, 769	0
1950	151, 665	128, 343	23, 322	6, 316, 500	4, 620, 294	3, 490, 794	3, 490, 794	0
1951	25, 129	138, 609	—113, 480	6, 613, 514	5, 030, 788	3, 637, 808	3, 637, 808	0
1952	4, 488	150, 924	—146, 436	7, 807, 690	6, 371, 400	3, 943, 738	3, 943, 738	0
1953	90, 008	191, 142	—101, 134	8, 888, 559	7, 553, 403	3, 948, 199	3, 948, 199	0
1954	8, 823	226, 602	—217, 779	8, 947, 829	7, 830, 452	3, 994, 794	3, 994, 794	0
1955	—69, 981	234, 914	—304, 895	9, 643, 711	8, 831, 229	3, 995, 517	3, 995, 517	0
1956	50, 145	264, 937	—214, 792	9, 672, 136	9, 074, 446	3, 995, 355	3, 995, 355	0
1957	—99, 554	272, 233	—371, 787	9, 968, 433	9, 742, 530	4, 003, 751	4, 003, 751	0
1958	—2, 795	292, 276	—295, 071	9, 996, 281	10, 065, 449	4, 005, 906	4, 005, 906	0
1959	111, 433	301, 963	—190, 530	9, 998, 281	10, 257, 979	4, 005, 906	4, 005, 906	0
1960	259, 804	307, 739	—47, 935	9, 998, 281	10, 305, 914	4, 005, 906	4, 005, 906	0
1961	333, 724	309, 177	24, 547	9, 998, 281	10, 281, 367	4, 005, 906	4, 005, 906	0
1962	396, 134	308, 441	87, 693	9, 998, 281	10, 193, 674	4, 005, 906	4, 005, 906	0
1963	407, 354	305, 810	101, 544	9, 998, 281	10, 092, 130	4, 005, 906	4, 005, 906	0
1964	418, 334	302, 764	115, 570	9, 998, 281	9, 976, 560	4, 005, 906	4, 005, 906	0
1965	426, 624	299, 297	127, 327	9, 998, 281	9, 849, 233	4, 005, 906	4, 005, 906	0
1966	426, 624	295, 477	131, 147	9, 998, 281	9, 718, 086	4, 005, 906	4, 005, 906	0
1967	426, 624	291, 543	135, 081	9, 998, 281	9, 583, 005	4, 005, 906	4, 005, 906	0
1968	426, 624	287, 490	139, 134	9, 998, 281	9, 443, 871	4, 005, 906	4, 005, 906	0
1969	426, 624	283, 316	143, 308	9, 998, 281	9, 300, 563	4, 005, 906	4, 005, 906	0
1970	426, 624	279, 017	147, 607	9, 998, 281	9, 152, 956	4, 005, 906	4, 005, 906	0
1971	426, 624	274, 589	152, 035	9, 998, 281	9, 000, 921	4, 005, 906	4, 005, 906	0
1972	426, 624	270, 028	156, 596	9, 998, 281	8, 844, 325	4, 005, 906	4, 005, 906	0
1973	426, 624	265, 330	161, 294	9, 998, 281	8, 683, 031	4, 005, 906	4, 005, 906	0
1974	426, 624	260, 491	166, 133	9, 998, 281	8, 516, 898	4, 005, 906	4, 005, 906	0
1975	426, 624	255, 507	171, 117	9, 998, 281	8, 345, 781	4, 005, 906	4, 005, 906	0
1976	426, 624	250, 373	176, 251	9, 998, 281	8, 169, 530	4, 005, 906	4, 005, 906	0
1977	426, 624	245, 086	181, 538	9, 998, 281	7, 987, 992	4, 005, 906	4, 005, 906	0
1978	426, 624	239, 640	186, 984	9, 998, 281	7, 801, 008	4, 005, 906	4, 005, 906	0
1979	426, 624	234, 030	192, 594	9, 998, 281	7, 608, 414	4, 005, 906	4, 005, 906	0
1980	426, 624	228, 252	198, 372	9, 998, 281	7, 410, 042	4, 005, 906	4, 005, 906	0
1981	426, 624	222, 301	204, 323	9, 998, 281	7, 205, 719	4, 005, 906	4, 005, 906	0
1982	426, 624	216, 172	210, 452	9, 998, 281	6, 995, 267	4, 005, 906	4, 005, 906	0
1983	426, 624	209, 858	216, 766	9, 998, 281	6, 778, 501	4, 005, 906	4, 005, 906	0
1984	426, 624	203, 355	223, 269	9, 998, 281	6, 555, 232	4, 005, 906	4, 005, 906	0
1985	426, 624	196, 657	229, 967	9, 998, 281	6, 325, 265	4, 005, 906	4, 005, 906	0
1986	426, 624	189, 758	236, 866	9, 998, 281	6, 088, 399	4, 005, 906	4, 005, 906	0
1987	426, 624	182, 652	243, 972	9, 998, 231	5, 844, 427	4, 005, 906	4, 005, 906	0
1988	426, 624	175, 333	251, 291	9, 998, 281	5, 593, 136	4, 005, 906	4, 005, 906	0
1989	426, 624	167, 794	258, 830	9, 998, 281	5, 334, 306	4, 005, 906	4, 005, 906	0
1990	426, 624	160, 029	266, 595	9, 998, 281	5, 067, 711	4, 005, 906	4, 005, 906	0
1991	426, 624	152, 031	274, 593	9, 998, 281	4, 793, 118	4, 005, 906	4, 005, 906	0
1992	426, 624	143, 794	282, 830	9, 998, 281	4, 510, 288	4, 005, 906	4, 005, 906	0
1993	426, 624	135, 309	291, 315	9, 998, 281	4, 218, 973	4, 005, 906	4, 005, 906	0
1994	426, 624	126, 569	300, 055	9, 998, 281	3, 918, 918	4, 005, 906	4, 005, 906	0
1995	426, 624	117, 568	309, 056	9, 998, 281	3, 609, 862	4, 005, 906	4, 005, 906	0
1996	426, 624	108, 296	318, 328	9, 998, 281	3, 291, 534	4, 005, 906	4, 005, 906	0
1997	426, 624	98, 746	327, 878	9, 998, 281	2, 963, 656	4, 005, 906	4, 005, 906	0
1998	426, 624	88, 910	337, 714	9, 998, 281	2, 625, 942	4, 005, 906	4, 005, 906	0
1999	426, 624	78, 778	347, 846	9, 998, 281	2, 278, 096	4, 005, 906	4, 005, 906	0
2000	426, 624	68, 343	358, 281	9, 998, 281	1, 919, 815	4, 005, 906	4, 005, 906	0
2001	426, 624	57, 594	369, 030	9, 998, 281	1, 550, 785	4, 005, 906	4, 005, 906	0
2002	426, 624	46, 524	380, 100	9, 998, 281	1, 170, 685	4, 005, 906	4, 005, 906	0
2003	426, 624	35, 121	391, 503	9, 998, 281	779, 182	4, 005, 906	4, 005, 906	0
2004	426, 624	23, 375	403, 249	9, 998, 281	375, 933	4, 005, 906	4, 005, 906	0
2005	426, 624	11, 278	415, 346	9, 998, 281	—	4, 005, 906	3, 966, 493	0
2006	426, 624	0	426, 624	9, 998, 281	—	4, 005, 906	3, 539, 869	0
2007	426, 624	0	426, 624	9, 998, 281	—	4, 005, 906	3, 113, 245	0
2008	426, 624	0	426, 624	9, 998, 281	—	4, 005, 906	2, 686, 621	0
2009	426, 624	0	426, 624	9, 998, 281	—	4, 005, 906	2, 259, 997	0
Total	23, 832, 012	12, 087, 822	11, 744, 190	9, 998, 281	—	4, 005, 906	(1)	—

¹ Paid out in year 2015.

Payout study—Continued—Irrigation and total

Fiscal year	Net revenues from irrigation water users			Investment repayment		Recapitulation	
	Elephant Butte irrigation district	El Paso County water im- provement	Total	Irrigation plant in service at end of year	Interest-free balance to be repaid	Net project revenues	Earned surplus (cumulative)
1940 (cumulative)-----	\$2, 279, 452	\$1, 738, 339	\$4, 017, 791	\$10, 181, 045	\$6, 126, 332	\$4, 017, 791	0
1941-----	124, 322	98, 863	223, 185	10, 298, 543	5, 903, 147	474, 814	0
1942-----	124, 322	98, 863	223, 185	10, 519, 952	5, 679, 962	520, 129	0
1943-----	124, 322	98, 863	223, 185	10, 546, 528	5, 456, 777	593, 828	0
1944-----	124, 321	98, 863	223, 184	10, 552, 086	5, 233, 593	587, 131	0
1945-----	124, 322	98, 863	223, 185	10, 554, 402	5, 010, 408	496, 652	0
1946-----	124, 322	98, 863	223, 185	10, 553, 526	4, 787, 223	532, 682	0
1947-----	124, 322	98, 863	223, 185	10, 554, 242	4, 564, 038	440, 858	0
1948-----	124, 322	98, 863	223, 185	10, 553, 831	4, 340, 853	419, 528	0
1949-----	124, 321	98, 863	223, 184	10, 554, 136	4, 117, 669	492, 262	0
1950-----	124, 322	98, 863	223, 185	10, 554, 382	3, 894, 484	374, 850	0
1951-----	124, 322	98, 863	223, 185	10, 554, 494	3, 671, 299	248, 314	0
1952-----	124, 322	87, 903	212, 225	10, 921, 836	3, 459, 074	216, 713	0
1953-----	124, 322	98, 863	223, 185	10, 996, 714	3, 235, 889	313, 193	0
1954-----	124, 322	98, 863	223, 185	10, 909, 105	3, 012, 704	232, 008	0
1955-----	62, 161	49, 431	111, 592	10, 933, 016	2, 901, 112	41, 611	0
1956-----	0	0	0	10, 932, 178	2, 901, 112	50, 145	0
1957-----	0	0	0	10, 939, 486	2, 901, 112	-99, 554	0
1958-----	62, 161	49, 431	111, 592	10, 939, 486	2, 789, 520	108, 797	0
1959-----	124, 321	98, 863	223, 184	10, 939, 486	2, 566, 336	334, 617	0
1960-----	124, 322	98, 863	223, 185	10, 939, 486	2, 343, 151	482, 989	0
1961-----	124, 322	98, 863	223, 185	10, 939, 486	2, 119, 966	556, 909	0
1962-----	124, 322	98, 863	223, 185	10, 939, 486	1, 896, 781	619, 319	0
1963-----	124, 322	98, 863	223, 185	10, 939, 486	1, 673, 596	630, 539	0
1964-----	124, 321	98, 863	223, 184	10, 939, 486	1, 450, 412	641, 518	0
1965-----	124, 322	98, 863	223, 185	10, 939, 486	1, 227, 227	649, 809	0
1966-----	124, 322	98, 863	223, 185	10, 939, 486	1, 004, 042	649, 809	0
1967-----	124, 322	98, 863	223, 185	10, 939, 486	780, 857	649, 809	0
1968-----	124, 322	98, 863	223, 185	10, 939, 486	557, 672	649, 809	0
1969-----	124, 322	98, 863	223, 185	10, 939, 486	334, 487	649, 809	0
1970-----	124, 322	98, 863	223, 185	10, 939, 486	111, 302	649, 809	0
1971-----	62, 161	49, 141	111, 302	10, 939, 486	0	537, 926	0
1972-----	0	0	0	10, 939, 486	0	426, 624	0
1973-----	0	0	0	10, 939, 486	0	426, 624	0
1974-----	0	0	0	10, 939, 486	0	426, 624	0
1975-----	0	0	0	10, 939, 486	0	426, 624	0
1976-----	0	0	0	10, 939, 486	0	426, 624	0
1977-----	0	0	0	10, 939, 486	0	426, 624	0
1978-----	0	0	0	10, 939, 486	0	426, 624	0
1979-----	0	0	0	10, 939, 486	0	426, 624	0
1980-----	0	0	0	10, 939, 486	0	426, 624	0
1981-----	0	0	0	10, 939, 486	0	426, 624	0
1982-----	0	0	0	10, 939, 486	0	426, 624	0
1983-----	0	0	0	10, 939, 486	0	426, 624	0
1984-----	0	0	0	10, 939, 486	0	426, 624	0
1985-----	0	0	0	10, 939, 486	0	426, 624	0
1986-----	0	0	0	10, 939, 486	0	426, 624	0
1987-----	0	0	0	10, 939, 486	0	426, 624	0
1988-----	0	0	0	10, 939, 486	0	426, 624	0
1989-----	0	0	0	10, 939, 486	0	426, 624	0
1990-----	0	0	0	10, 939, 486	0	426, 624	0
1991-----	0	0	0	10, 939, 486	0	426, 624	0
1992-----	0	0	0	10, 939, 486	0	426, 624	0
1993-----	0	0	0	10, 939, 486	0	426, 624	0
1994-----	0	0	0	10, 939, 486	0	426, 624	0
1995-----	0	0	0	10, 939, 486	0	426, 624	0
1996-----	0	0	0	10, 939, 486	0	426, 624	0
1997-----	0	0	0	10, 939, 486	0	426, 624	0
1998-----	0	0	0	10, 939, 486	0	426, 624	0
1999-----	0	0	0	10, 939, 486	0	426, 624	0
2000-----	0	0	0	10, 939, 486	0	426, 624	0
2001-----	0	0	0	10, 939, 486	0	426, 624	0
2002-----	0	0	0	10, 939, 486	0	426, 624	0
2003-----	0	0	0	10, 939, 486	0	426, 624	0
2004-----	0	0	0	10, 939, 486	0	426, 624	0
2005-----	0	0	0	10, 939, 486	0	426, 624	0
2006-----	0	0	0	10, 939, 486	0	426, 624	0
2007-----	0	0	0	10, 939, 486	0	426, 624	0
2008-----	0	0	0	10, 939, 486	0	426, 624	0
2009-----	0	0	0	10, 939, 486	0	426, 624	0
Total-----	5, 698, 303	4, 445, 820	10, 144, 123	10, 939, 486	0	33, 976, 135	0

RIVERTON PROJECT

RIVERTON, WYO.

The Riverton project was authorized for construction by the Secretary of the Interior on June 19, 1918, under terms of the Indian Appropriation Act for the fiscal year 1919, approved on May 25, 1918. By act of June 5, 1920 (41 Stat. 874), the project was placed under the jurisdiction of the Bureau of Reclamation. As planned, the project provides for utilizing direct flow from Wind River and stored flow from Bull Lake Creek for the irrigation of approximately 65,000 acres of land, and generation of electric power for project construction, and for sale. Project works consist of Bull Lake Dam, Wind River Diversion Dam, Pilot Butte powerplant, Pilot Butte Dam and Reservoir, Wyoming Canal, Pilot Canal, and Muddy Ridge Canal.

FIRST AND SECOND DIVISIONS MIDVALE IRRIGATION DISTRICT

The total reimbursable cost including rehabilitation and betterment of irrigation works and supplemental drainage, allocated to the Midvale irrigation district as of June 30, 1957, is estimated at \$10,630,707. Under terms of the amendatory repayment contract of June 26, 1952, and contract of September 6, 1956, with the irrigation district, the entire amount is repayable except \$608,034 chargeoff authorized by the act of June 23, 1952 (66 Stat. 151), and \$8,177 by the act of August 13, 1953 (67 Stat. 566), and estimated contributions of \$200,000. The district had paid \$381,827 as of December 31, 1951, under the original contract. Annual installments are based on the number of acres in each pay class land, except that the district may elect to pay its annual installments according to a variable formula based on changes in farm commodity prices and the agricultural parity ratio. Classes 1 and 2 pay construction charges at the rate of \$2.05 per irrigable acre, class 3 at the rate of \$1.25 per irrigable acre and class 4 at the rate of \$0.50 per irrigable acre.

Operation and maintenance were assumed by the Midvale irrigation district on January 1, 1951, under terms of an interim operation and maintenance contract. The amendatory repayment contract of June 26, 1952, provides for the district to also operate the joint works, i. e., those irrigation works common to the Midvale irrigation district, Pilot Butte powerplant, and the Third division.

CONTRACTS

- 1931, February 12: Contract Ilr-629 with Midvale irrigation district for repayment of construction cost in 40 graduated annual installments.
- 1943, December 13: Contract with Midvale irrigation district. Contract provides for beginning construction charge repayments on December 31, 1944. Project to be continued on a water-rental basis.
- 1952, June 26: Contract 14-06-600-67 with Midvale irrigation district. Provides for repayment of adjusted construction charge obligation of \$7,000,000 in annual installments, based on land classification, beginning in 1953. Annual installment to include acres covered by water-service contracts with Indians or their lessees. Base annual construction installments estimated at \$54,180.
- 1956, September 6: Contract 14-06-600-1992 with Midvale irrigation district. Provides for repayment of monies expended for rehabilitation and betterment work, such sum not to exceed \$2,500,000, in annual installments based on land classification beginning in 1967.

The summary of status of repayment contracts in First and Second divisions on June 30, 1957, is as follows:

Total value of contracted repayment.....	\$9, 881, 827
Total matured charges.....	665, 450
Total matured charges repaid.....	643, 334
Total matured charges unpaid.....	1 22, 116

¹ Payment deposited July 2, 1957.

THIRD DIVISION

The total estimated cost of the Third division as of June 30, 1957, is \$20,839,980. Of this amount, \$683,695 is nonreimbursable under act

of August 13, 1953 (67 Stat. 566), and \$284 under act of August 15, 1953 (67 Stat. 592), and \$9,420,959 has been recommended as a writeoff due to loss of irrigable acres. The entire Cottonwood Bench area of 12,778 acres has been determined non-irrigable and dropped from the program. In addition, 23,647 acres in the North Pavillion, North Portal, and Muddy Ridge areas have been reclassified as nonirrigable and it has been recommended that costs associated therewith together with costs associated with the Cottonwood Bench area be written off. An amount of \$400,465 has also been recommended as a non-reimbursable allocation to fish and wildlife in connection with the Third division. Deduction of these items, all of which are subject to congressional authorization, would result in reimbursable costs of \$10,334,861 for the Third division. Court hearings on a petition to organize an irrigation district for the North Pavillion and North Portal areas were held early in July 1957. On August 29, the court order establishing the Third division irrigation district was filed. No lands in the Muddy Ridge or Cottonwood areas of the division were included. Plans are underway to open

repayment contract negotiations with the new district in the near future.

POWER DIVISION

The construction cost of Riverton allocated to the Power division is \$791,487, including assigned joint costs. The project works included in this allocation are Pilot Butte powerplant, the small transmission system required to dispose of the power at load centers and to interconnect with the Missouri River Basin project transmission system, and general property associated with power facilities. In addition to the direct power allocation, 10 percent of the cost of certain water supply works of the irrigation plant are assigned to power for repayment. These works are the Bull Lake Reservoir, Wyoming Canal First division, the diversion dam, and the telephone system. The amount so assigned is \$308,185. Construction of all power features is complete and the powerplant has been in service since 1925. The powerplant is comprised of two 800-kilowatt units. There are 75.8 miles of low voltage transmission lines and 4,970 kilovolt-amperes of receiving substation capacity.

Tentative allocation and repayment—Riverton project

Item	Total	Midvale irrigation district	Third division	Power
Total estimated or actual cost:				
Construction cost.....	\$29,372,981	\$9,982,735	\$18,598,759	\$791,487
Other reimbursable costs.....	2,205,498	647,972	1,557,526	-----
Total reimbursable costs.....	31,578,479	10,630,707	20,156,285	791,487
Nonreimbursable costs.....	1,172,353	488,658	683,695	-----
Total project costs.....	32,750,832	11,119,365	20,839,980	791,487
Repayment:				
Contributions.....	200,000	200,000	-----	-----
Reductions authorized:				
Public Law 402, act of June 23, 1952.....	608,034	608,034	-----	-----
Public Law 284, act of August 15, 1953.....	1,012,000	385,471	626,529	-----
Public Law 258, act of August 13, 1953.....	168,530	111,364	57,166	-----
Reductions recommended:				
Fish and wildlife on Third division.....	400,465	-----	400,465	-----
Lost acres—Third division areas.....	9,420,959	-----	9,420,959	-----
From power revenues:				
For commercial power investment.....	483,302	-----	-----	483,302
For irrigation plant-joint works.....	308,185	-----	-----	308,185
From water users:				
For rehabilitation and betterment costs.....	4,450,000	4,450,000	-----	-----
For construction costs.....	15,699,357	5,364,496	10,334,861	-----
Total repayment.....	32,750,832	11,119,365	20,839,980	791,487
Water user contracts:				
Contracted.....	9,881,827	9,881,827	-----	-----
Pending.....	10,334,861	-----	10,334,861	-----
Adjustments to be made—rehabilitation and betterment.....	-67,331	-67,331	-----	-----

¹ Includes funded charges \$427,401.

RECLAMATION REPAYMENTS

Midvale irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1931	\$5,037,971							
1932	5,058,389							
1933	5,075,373							
1934	5,089,766							
1935	5,101,809							
1936	5,116,724							
1937	5,122,915							
1938	5,129,053							
1939	5,125,017							
1940	5,132,624							
1941	5,119,803							
1942	5,127,670							
1943	5,123,272							
1944	5,132,129							
1945	5,120,149	\$37,590		\$37,590	\$26,260		\$26,260	\$26,260
1946	5,101,965	36,974		36,974	36,974	\$11,217	48,191	74,451
1947	5,091,480	36,829		36,829	36,829	113	36,942	111,393
1948	5,090,130	55,329		55,329	55,329		55,329	166,722
1949	5,128,895	58,036		58,036	58,036		58,036	224,758
1950	¹ 7,205,914	77,091		77,091	77,091		77,091	301,849
1951	¹ 7,339,580	79,979		79,979	79,979		79,979	381,828
1952	² 7,381,827	82,546		82,546	82,546		82,546	464,374
1953	7,381,827	45,183		45,183	45,183		45,183	509,557
1954	7,381,827	44,895		44,895	44,895		44,895	554,452
1955	7,381,827	44,638	³ —\$5,551	39,087	44,638	³ 5,551	39,087	593,539
1956	7,381,827	44,688	³ —11,197	33,491	22,344	³ 11,197	11,147	604,686
1957	⁵ 9,881,827	44,232	³ —5,812	38,420	44,460	³ 5,812	38,648	643,334
Total		688,010	—22,560	665,450	654,564	11,230	643,334	
Collected				643,334				
Uncollected				⁴ 22,116				

¹ Includes \$1,950,000 for rehabilitation and betterment.² Amendatory repayment contract of June 26, 1952, established a construction obligation of \$7,000,000; prior payments totaled \$381,827.³ Credits represent reduction of construction obligation due to farm unit exchanges (reference sec. 3, Public Law 258, 83d Cong., 1st sess.).⁴ Payment deposited July 2, 1957.⁵ Includes \$2,500,000 for rehabilitation and betterment.*Operation and maintenance assessments history
(water rentals)*

Fiscal year	Accruals	Collections
1931	\$2,407	\$2,209
1932	2,870	2,916
1933	4,792	4,821
1934	7,660	7,629
1935	16,843	16,884
1936	23,866	23,771
1937	30,548	30,118
1938	35,597	35,595
1939	44,150	43,975
1940	48,566	48,584
1941	59,171	58,811
1942	45,374	45,966
1943	55,865	55,348
1944	57,255	56,183
1945	66,693	68,283

*Operation and maintenance assessments history
(water rentals)—Continued*

Fiscal year	Accruals	Collections
1946	\$66,153	\$65,849
1947	65,879	65,788
1948	76,671	76,536
1949	75,882	75,565
1950	85,886	86,148
1951	30,118	29,895
1952	21,691	21,735
1953	24,144	24,445
1954	24,906	24,414
1955	35,319	36,227
1956	36,806	36,931
1957	43,945	43,105
Total	1,089,057	1,087,731

ROGUE RIVER BASIN PROJECT—Talent Division

WHITE CITY, OREG.

The Talent division of Rogue River Basin project is located in Jackson County in southwest Oregon. The extension and enlargement of existing facilities, together with construction of new facilities, was authorized by Congress by act of August 20, 1954 (68 Stat. 752).

The primary purposes of the project are to provide supplemental irrigation water to 10,030 acres and a full water supply to 5,310 irrigable acres, and to generate electric energy. Construction of the project works will also result in providing the area with flood protection, protect and enhance the fish and wildlife values, and provide recreational facilities.

The principal features to be constructed will consist of a canal system which will collect water from streams in the Klamath River and Rogue River basins; Howard Prairie Dam and Reservoir with a capacity of 62,000 acre-feet; a delivery canal from Howard Prairie Dam to Keene Creek; and a dam and reservoir on Keene Creek to regulate releases from Howard Prairie Reservoir and Hyatt Prairie Reservoir for irrigation. In addition, power features will be constructed as an integral part of the irrigation system and will consist of the Green Springs powerplant with installed capacity of 16,000 kilowatts; a conduit and penstock from the Cascade Divide tunnel; and a pressure tunnel through the Cascade Divide from Keene Creek Reservoir in the Klamath River Basin to the Rogue River Basin. Existing irrigation facilities to be enlarged or extended consist of enlarging Emigrant Dam and Reservoir to a capacity of 40,000 acre-feet and enlarging and extending the Talent irrigation district's distribution system.

The total cost of constructing the Talent division facilities is estimated to be \$21,188,000, excluding rehabilitation described below. Construction costs are allocated as follows:

Reimbursable:	
Irrigation.....	\$12, 321, 000
Power.....	8, 261, 000
Subtotal.....	20, 582, 000
Nonreimbursable:	
Flood control.....	354, 000
Recreation.....	156, 000
Fish and wildlife.....	96, 000
Subtotal.....	606, 000
Total.....	21, 188, 000

In addition to the cost allocated to irrigation, it is anticipated that in 1962 when the Talent irrigation district is scheduled to start repaying construction costs, the district will have an unpaid bonded indebtedness of \$143,000. This indebtedness plus interest of \$23,980 when added to construction costs will make a total irrigation obligation of \$12,487,980.

Interest during construction of power facilities is estimated to be \$619,600. This amount when added to construction costs makes a total power cost of \$8,880,600, to be repaid by power at 2.5842 percent interest rate as specified in the project authorization act.

The Talent irrigation district will operate the existing facilities and as construction of project features is completed they may be turned over to the district for operation by written notice from the Secretary.

Construction cost of project facilities totaled \$1,951,339 as of June 30, 1957.

On the basis of the definite plan report and contractual negotiations, the reimbursable costs will be returned to the Government as follows: The Talent irrigation district will repay a maximum of \$5,810,000 of the costs allocated to irrigation. The Medford and Rogue River irrigation districts will pay an estimated amount of

\$1,015,000. Deferred costs on works to be built at some future date is \$161,359. Power will repay the total cost (\$8,261,000) allocated to it and pay the balance of irrigation cost allocation (\$5,334,591).

Repayment contracts.—On August 27, 1956, repayment contract No. 14-06-100-1045 was executed with the Talent irrigation district to repay that portion of the costs allocated for repayment by irrigation. The contract has fixed the district's irrigation construction charge obligation to be \$5,810,000. This amount can be reduced by the Secretary, if he finds that such a reduction is justified, to an amount not less than \$5,000,000. The contract also provides that should Medford and Rogue River irrigation districts develop 2,680 acres of new lands, these districts will be charged a comparable share of the allocated costs. This would amount to approximately \$1,015,000. Irrigation costs in the amount of \$161,359 have been deferred pending the construction of irrigation laterals.

Repayment of irrigation construction costs by the district is scheduled as follows: The annual installment shall be \$81,000, of which not less than \$19,000 shall be applied annually on the district's bonded indebtedness, including interest, and the last payment to be made by December 31, 1969. The annual installment is then recomputed by dividing the unpaid construction charge remaining by the number of years remaining in the 60-year repayment period (60 years less number of years used in retiring the bonded indebtedness).

The annual installments may be adjusted, if the district board elects, by adopting the Normal and Percentage variable repayment plan. The amount of the adjusted annual installment would range from 15 percent to 175 percent. Provisions are also included whereby this repayment plan can be further adjusted by using an appropriate parity factor, with the precise formula to be worked out at time of adoption.

Rehabilitation program (Medford irrigation district).—The rehabilitation and betterment of existing irrigation facilities for the Medford irrigation district was also authorized by the act of August 20, 1954 (68 Stat. 752).

The principal features to be rehabilitated are: Joint works which include Four-Mile Dam, Fish Lake Dam and the main canal; Medford Canal; and the district's distribution system.

The cost to the district for repair, rehabilitation, and betterment of the project works is estimated to be \$1,475,466.

The district will operate and maintain the project works.

Repayment contracts.—The repayment contract with the Medford irrigation district, dated August 1, 1955, provides for repayment to the United States the actual cost of rehabilitating the district works in an amount not to exceed \$1,475,466. The amount of the annual installments is scheduled as follows: During the repayment period, in which the district is obligated to pay annually on its bonded indebtedness, including interest, not less than \$18,000 with the last payment to be made by December 31, 1969, the annual installment shall be one-eightieth of the rehabilitation and betterment costs as of the preceding December 31. Thereafter the annual installments shall be the amount determined by dividing the unpaid rehabilitation costs by the remaining years (40 years less number of years used in retiring the bonded indebtedness). Payments are to be due and payable on December 31 of the year following the year in which the Secretary notifies the district that the rehabilitation has been completed.

The annual installment may be adjusted, if the district board elects, by adopting the Normal and Percentage variable repayment plan. The amount of the adjusted annual installment would range from 15 percent to 200 percent under this proposed alternative. The annual payment would then be due on or before March 15 of the year following rather than the preceding December 31.

On December 13, 1955, a contract was signed whereby the district would undertake and complete certain specified minor rehabilitation work under the direction of the contracting officer, the district to be reimbursed for its expenditures in the performance of this work in an amount not to exceed \$30,000. All sums expended by the United States for rehabilitation work pursuant to this contract shall be repaid by the district in accordance with the terms of the contract dated August 1, 1955. The authority permitting the district to accomplish such minor work is contained in the act of May 14, 1956 (70 Stat. 155).

A supplemental contract was signed on January 5, 1956, whereby article 9 of the contract dated August 1, 1955, is amended to permit the district to carry out rehabilitation work on joint works

provided the board of directors of the Rogue River Valley irrigation district would approve the work programed.

CONTRACTS

- 1955, August 1: Contract 14-06-100-790 with Medford irrigation district to repay \$1,475,466, the estimated cost of project rehabilitation, in 40 annual installments.
- 1955, December 13: Contract with the Medford irrigation district for the district to perform minor rehabilitation and betterment work and be reimbursed from funds made available for such work in an amount not to exceed \$30,000.
- 1956, January 5: Supplemental contract revising article 9 of the August 1, 1955, contract permitting the district to perform rehabilitation work on joint facilities provided prior approval is obtained from the Rogue River Valley irrigation district.

Rehabilitation program (Rogue River Valley irrigation district).—The rehabilitation and betterment of existing irrigation facilities for the Rogue River Valley irrigation district was authorized by the Secretary pursuant to the act of August 20, 1954 (68 Stat. 752).

The principal features to be rehabilitated are: Joint works which include Four-Mile Dam, Fish Lake Dam and the main canal; Hopkins Canal; and the district's distribution system.

The cost to the district for repair, rehabilitation, and betterment of the project works is estimated to be \$236,534. The district will operate and maintain the project works.

Repayment contracts.—The repayment contract

with the Rogue River Valley irrigation district, dated August 2, 1955, provides for repayment to the United States of the actual cost of rehabilitating the district irrigation facilities in an amount not to exceed \$236,534. The first payment to be due and payable on December 31 in the year following that in which the Secretary notifies the district that the rehabilitation work has been completed. The district may elect to adjust its annual installments by adopting the Normal and Percentage variable repayment plan. The annual payment would then be due on or before March 15 of the year following rather than the preceding December 31.

A supplemental contract was signed on June 5, 1956, whereby it was agreed that article 9 of their contract dated August 2, 1955, would be amended to permit the Medford irrigation district to carry out rehabilitation work on their joint facilities when acceptable to the district's board of directors and evidenced by a resolution approving the work program.

CONTRACTS

- 1955, August 2: Contract 14-06-100-790 with the Rogue River Valley irrigation district to repay the actual cost of the rehabilitation program in an amount not to exceed \$236,534 in 40 equal annual installments.
- 1956, June 5: Supplemental contract revising article 9 of the August 2, 1955, contract permitting the Medford irrigation district to carry out rehabilitation work on their joint facilities when acceptable to the district's board of directors and evidenced by the adoption of a resolution approving the work program.

SALT RIVER PROJECT

PHOENIX, ARIZ.

The construction of the Salt River project in Maricopa County, Ariz., was originally authorized by the Secretary of the Interior on March 14, 1903, in accordance with the act of June 17, 1902 (32 Stat. 388). Rehabilitation and betterment of the project works is being accomplished under authority of the act of October 7, 1949 (63 Stat. 724), as amended.

The project was constructed with the objective of furnishing an adequate water supply to the irrigable lands of the Salt River project, now approximately 240,000 acres. Original project features included the Roosevelt Storage Dam and powerplant, Granite Reef diversion dam and the improved main canals, placed in service in 1910 and completed in 1911. Additional construction was undertaken by the Bureau of Reclamation in 1936 and completed in 1939.

The total actual cost of constructing the Salt River project features was \$20,077,507.69. Of this amount, \$948,718.96, or 20 percent of the cost of Bartlett Dam (contract of June 3, 1935), was assumed by the Bureau of Indian Affairs. After adjustment for reduction by the Board of Review in 1918, for revenues received during construction, and for funding interest and penalties and net operation and maintenance costs, the repayment obligation assumed by the Salt River Valley Water Users' Association was \$17,482,687.89.

Operation and maintenance of the project was transferred to the association in accordance with the contract of September 6, 1917.

Repayment contracts.—Repayment of the original net construction cost, \$10,937,872.36, of the Salt River project in 20 installments was provided in the contract of September 6, 1917. This contract was amended on June 30, 1930, extending the time for payment of unaccrued charges and

reducing annual installments. Final payment under the contracts for original construction cost was made in October 1955. The cost of constructing Bartlett Dam, \$6,544,815.53, is payable in 40 graduated installments under the contracts of November 26, 1935, and October 2, 1939. Payment will be completed in 1979.

PUBLIC NOTICE AND CONTRACTS

- 1904, June 25: Contract with Salt River Valley Water Users' Association provided for collection and payment of cost of irrigation works apportioned by Secretary to shareholders in not less than 10 equal annual payments.
- 1917, January 18: Public notice. Construction charge \$60 per acre, payable in 20 graduated annual installments.
- 1917, September 6: Contract Ilr-307 with Salt River Valley Water Users' Association. Association assumed obligation to repay construction costs of project, payable in 20 graduated installments.
- 1922, July 26: Association granted extension of time for payment of 1920, 1921, 1922, and 1923 charges.
- 1930, June 30, as amended: Contract with Salt River Valley Water Users' Association. Delinquent 1929, 1930, and 1931 charges to be paid in lump sum of \$1,851,232.60. Remainder of debt scheduled to be paid in 20 years, ending December 1, 1951, in graduated installments.
- 1935, November 26 (Ilr-819) and 1939, October 2: Contracts with Salt River Valley Water Users' Association to pay construction costs of Bartlett Reservoir. Estimated cost \$6,600,000, payable in 40 graduated annual installments.

Rehabilitation and betterment contracts.—In 1950 a rehabilitation and betterment program was begun on the Salt River project pursuant to the act of October 7, 1949 (63 Stat. 724), with the total work program to be accomplished scheduled over a period of several years. The general nature and purpose of the rehabilitation and betterment program is to line certain sections of canals, replace

certain laterals with underground pipe, repair and replace certain gates, checks and other irrigation structures, rehabilitate project water wells, and to undertake repair and betterment work on some of the major storage facilities. Contracts covering

such work have been executed annually between the United States and the Salt River Valley Water Users' Association under an original \$6 million program supplemented by a \$10 million congressionally approved extended program, as follows:

Date and number of contract	Total obligation	Amount repaid as of June 30, 1957	Matured charges unpaid
Mar. 29, 1950, 11r-1568 ¹ -----	\$1,361,451	\$293,399	0
June 26, 1951, 176r-681-----	1,245,690	224,224	0
Dec. 12, 1951, 176r-705-----	155,847	28,053	0
May 21, 1952, 176r-763-----	988,839	177,991	0
May 19, 1953, 14-06-300-66-----	740,946	118,551	0
May 17, 1954, 14-06-300-180-----	642,488	96,373	0
May 6, 1955, 14-06-300-339-----	634,592	76,151	0
July 11, 1956, 14-06-300-544-----	987,451	0	0
Total-----	6,757,304	1,014,742	0

¹ Amended Oct. 26, 1950 and Jan. 2, 1951.

Repayment of the obligation covered by the foregoing contracts of March 29, 1950, through May 6, 1955, inclusive, is scheduled for completion in 1970. Repayment of the obligation covered by the contract of July 11, 1956, is scheduled for completion in 1986 in accordance with a 30-year repay-

ment period approved by the Congress for the \$10 million extended rehabilitation and betterment program. Under this extended program, it is contemplated that additional annual contracts in the amount of approximately \$1 million per year will be required over a period of 9 more years.

RECLAMATION REPAYMENTS

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		For current year	Adjustments	Total	For current year	Prior years and adjustments	Total	Cumulative total
1917	\$2, 894, 662							
1918	10, 166, 022	\$203, 320		\$203, 320	\$203, 320		\$203, 320	\$203, 320
1919	10, 166, 022	203, 321		203, 321	203, 321		203, 321	406, 641
1920	10, 166, 022	203, 321		203, 321	203, 320		203, 320	609, 961
1921	10, 166, 022	203, 321		203, 321			0	609, 961
1922	10, 166, 022	406, 640		406, 640	756		756	610, 717
1923	10, 166, 022		¹ \$332, 962	¹ 332, 962		\$276, 244	276, 244	886, 961
1924	10, 166, 022	809, 962		809, 962	809, 962		809, 962	1, 696, 923
1925	10, 166, 022	609, 961		609, 961	609, 961		609, 961	2, 306, 884
1926	10, 166, 022	643, 862		643, 862	643, 862		643, 862	2, 950, 746
1927	10, 166, 022	645, 557		645, 557	521		521	2, 951, 267
1928	10, 166, 022	647, 337		647, 337	1, 266	645, 036	646, 302	3, 597, 569
1929	10, 166, 022	1, 042, 691		1, 042, 691	1, 042, 691	646, 071	1, 688, 762	5, 286, 331
1930	10, 166, 022	609, 962		609, 962			0	5, 286, 331
1931	10, 166, 022	1, 219, 923		1, 219, 923	1, 219, 922	609, 962	1, 829, 884	7, 116, 215
1932	² 10, 166, 022			0			0	7, 116, 215
1933	² 10, 166, 022	152, 490		152, 490			0	7, 116, 215
1934	² 10, 209, 450		¹ 762, 452	762, 452		¹ 609, 961	¹ 609, 961	6, 506, 254
1935	10, 209, 450	152, 490		152, 490	152, 490		152, 490	6, 658, 744
1936	10, 209, 450	152, 491		152, 491	152, 491		152, 491	6, 811, 235
1937	10, 209, 450	152, 490		152, 490	152, 490		152, 490	6, 963, 725
1938	11, 189, 042	217, 797		217, 797	217, 797		217, 797	7, 181, 522
1939	³ 11, 189, 042	217, 797		217, 797	217, 797		217, 797	7, 399, 319
1940	³ 11, 189, 042	50, 000		50, 000	50, 000		50, 000	7, 449, 319
1941	⁴ 17, 789, 042	282, 688		282, 688	64, 891		64, 891	7, 514, 210
1942	17, 721, 398	142, 209		142, 209	65, 756	217, 797	283, 553	7, 797, 763
1943	17, 721, 398	311, 389		311, 389	311, 389	76, 453	387, 842	8, 185, 605
1944	17, 640, 791	1, 186, 776		1, 186, 776	1, 186, 776		1, 186, 776	9, 372, 381
1945	17, 488, 233	765, 942		765, 942	765, 942		765, 942	10, 138, 323
1946	17, 488, 233	131, 033		131, 033	131, 033		131, 033	10, 269, 356
1947	17, 488, 233	131, 033		131, 033	131, 033		131, 033	10, 400, 389
1948	17, 482, 688	130, 886		130, 886	130, 886		130, 886	10, 531, 275
1949	17, 482, 688	130, 886		130, 886	130, 886		130, 886	10, 662, 161
1950	17, 482, 688	130, 886		130, 886	130, 886		130, 886	10, 793, 047
1951	17, 482, 688	130, 886		130, 886	130, 886		130, 886	10, 923, 933
1952	17, 482, 688	130, 886		130, 886	130, 886		130, 886	11, 054, 819
1953	17, 482, 688	450, 343		450, 343	450, 343		450, 343	11, 505, 162
1954	17, 482, 688	450, 342		450, 342	450, 342		450, 342	11, 955, 504
1955	17, 482, 688	450, 343		450, 343	450, 343		450, 343	12, 405, 847
1956	17, 482, 688	364, 159		364, 159	364, 159		364, 159	12, 770, 006
1957	17, 482, 688	196, 362		196, 362	196, 362		196, 362	12, 966, 368
Total		14, 061, 782	¹ 1, 095, 414	12, 966, 368	11, 104, 766	1, 861, 602	12, 966, 368	
Collected				12, 966, 368				
Uncollected				0				

¹ Decrease. Decreases cover charges deferred under 1922 contract and under relief acts.

² Moratorium period. Acts of Apr. 1, 1932, and Mar. 3, 1933. Construction charges deferred for calendar years 1931, \$648,063; 1932, \$157,441; 1933, \$152,866.

³ Deferred under act of Aug. 4, 1939, construction charge for 1939, \$167,797, and 1940, \$217,797.

⁴ Increase in obligation caused by addition of obligation for Bartlett Reservoir under 1935 contract.

Rehabilitation and betterment repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1951-----	\$1,361,450	\$2,677	-----	\$2,677	\$2,677	-----	\$2,677	\$2,677
1952-----	2,762,987	81,151	-----	81,151	81,151	-----	81,151	83,828
1953-----	3,751,827	116,656	-----	116,656	116,656	-----	116,656	200,484
1954-----	4,492,773	34,340	-----	34,340	34,340	-----	34,340	234,824
1955-----	5,135,260	143,264	-----	143,264	143,264	-----	143,264	378,088
1956-----	5,769,852	373,669	-----	373,669	373,669	-----	373,669	751,757
1957-----	6,757,304	262,985	-----	262,985	262,985	-----	262,985	1,014,742
Total-----	-----	1,014,742	-----	1,014,742	1,014,742	-----	1,014,742	1,014,742
Collected-----	-----	-----	-----	-----	1,014,742	-----	-----	-----
Uncollected-----	-----	-----	-----	-----	0	-----	-----	-----

Construction payout schedule

Fiscal year	Net revenues from water users	Investment repayment		Fiscal year	Net revenues from water users	Investment repayment	
		Irrigation plant in service at end of year	Interest-free balance to be repaid			Irrigation plant in service at end of year	Interest-free balance to be repaid
1958-----	\$196,361.75	\$20,077,508	\$4,319,958.60	1970-----	\$196,361.75	\$20,077,508	\$1,963,617.60
1959-----	196,361.75	20,077,508	4,123,596.85	1971-----	196,361.76	20,077,508	1,767,255.84
1960-----	196,361.75	20,077,508	3,927,235.10	1972-----	196,361.76	20,077,508	1,570,894.08
1961-----	196,361.75	20,077,508	3,730,873.35	1973-----	196,361.76	20,077,508	1,374,532.32
1962-----	196,361.75	20,077,508	3,534,511.60	1974-----	196,361.76	20,077,508	1,178,170.56
1963-----	196,361.75	20,077,508	3,338,149.85	1975-----	196,361.76	20,077,508	981,808.80
1964-----	196,361.75	20,077,508	3,141,788.10	1976-----	196,361.76	20,077,508	785,447.04
1965-----	196,361.75	20,077,508	2,945,426.35	1977-----	196,361.76	20,077,508	589,085.28
1966-----	196,361.75	20,077,508	2,749,064.60	1978-----	196,361.76	20,077,508	392,723.52
1967-----	196,361.75	20,077,508	2,552,702.85	1979-----	196,361.76	20,077,508	196,361.76
1968-----	196,361.75	20,077,508	2,356,341.10	1980-----	196,361.76	20,077,508	0
1969-----	196,361.75	20,077,508	2,159,979.35				

SAN DIEGO PROJECT

SAN DIEGO, CALIF.

Construction of the San Diego aqueduct was undertaken on Presidential directive dated November 29, 1944. The act of April 15, 1948 (62 Stat. 171), ratified the actions theretofore and thereafter taken in construction of the aqueduct. Enlargement of the San Diego aqueduct was authorized by the act of October 11, 1951 (65 Stat. 404).

Construction of the aqueduct was undertaken during World War II in order to relieve the acute water supply situation in the San Diego area associated with increased requirements of the military. With expansion of the military establishment in 1950 and 1951, the Department of Navy obtained authorization in the act of October 11, 1951, for the enlargement of the aqueduct from 85 cubic feet per second to not less than 165 cubic feet per second. The total length of the aqueduct is 71.1 miles, consisting of concrete pipeline, tunnels, connecting structures, and appurtenant works.

The total cost of the first barrel of the San Diego aqueduct as furnished by the Department of the Navy is \$14,407,643, and for the second barrel is \$16,125,015, which figures may be subject to revision by the Navy. Cost of work performed by the Bureau of Reclamation was \$269,485 and \$16,116,598 for the first and second barrels, respectively.

Repayment contracts.—Repayment of the cost of the first barrel of the San Diego aqueduct is provided under contract between the Navy Department acting for the United States, and the city of San Diego dated October 17, 1945. This

contract, which on September 23, 1946 (supplement agreement No. 1), was transferred to the San Diego County Water Authority, provided for payment of an annual rental of \$500,000, beginning with the formal delivery of possession of the aqueduct to the authority. In accordance with supplemental agreement No. 4, dated April 1, 1952, to the contract of October 17, 1945, the cost of the second barrel of the aqueduct will be repaid by the authority in 40 years with interest. The administration of the San Diego aqueduct currently is under the jurisdiction of the Department of the Navy. Administration of the aqueduct will be transferred to the Department of the Interior upon ratification of interdepartmental agreement as provided by act of May 31, 1957 (71 Stat. 41). The authority assumed possession and use on an interim basis from January 1, 1948, to December 31, 1951, of the first barrel and began payment on January 1, 1948, at a rate equivalent to 50 percent of the rental rate prescribed in the contract of October 17, 1945 (supplemental agreement No. 3, dated December 11, 1947). The authority assumed possession of the second barrel on February 28, 1955, and was notified that payments were to start in accordance with supplemental agreement No. 4 of the contract dated October 17, 1945.

CONTRACTS

1945, October 17: City of San Diego. For construction and lease of the San Diego aqueduct. Estimated cost of \$14.5 million to be repaid in annual rentals under lease of \$500,000.

1946, April 22: Memorandum of understanding between Departments of the Navy and Interior transferring administration of aqueduct from Navy to Bureau of Reclamation on completion of construction.

1947, December 11: San Diego County Water Authority. Permitted authority and Metropolitan water district to assume possession of aqueduct for purpose of operating and maintaining it prior to completion and required payment of a rental rate equal to one-half the annual lease rate prescribed in the contract of October 17, 1945.

1952, April 1: San Diego County Water Authority. Construction of the second barrel of the aqueduct at an estimated cost not exceeding \$18 million, repayable over 40 years with interest.

1952, May 28: Memorandum of agreement between the Departments of the Navy and Interior providing for the construction of the second barrel and, upon completion thereof, agreeing to amend the memorandum of understanding of April 22, 1946, to provide for the transfer of the administration of first and second barrels of the aqueduct from the Navy to Bureau of Reclamation.

SAN LUIS VALLEY PROJECT

MONTE VISTA, COLO.

The San Luis Valley project was originally authorized on April 10, 1940, by a finding of feasibility by the Secretary of the Interior in accordance with the provisions of section 9 of the Reclamation Project Act of 1939 (53 Stat. 1187). The finding of feasibility, together with related documents, was transmitted to the Congress and printed as House Document 693, 76th Congress. A supplemental finding of feasibility covering the Platoro unit was made in letter of March 7, 1949, from the Secretary of the Interior to the President. Construction of other parts of the San Luis Valley project is contingent upon additional findings of feasibility.

PLATORO UNIT

The Platoro unit, consisting of the Platoro Dam and Reservoir located on the Conejos River in Conejos County, Colo., provides supplemental water for approximately 86,000 acres in the Conejos water conservancy district and controls floods on the upper Conejos River.

The cost of the Platoro unit to June 30, 1957, is \$3,879,567. No further costs are anticipated. According to the authorization, 60 percent of the cost is allocated to irrigation and 40 percent is allocated to flood control.

Repayment contract.—Under terms of the repayment contract of March 31, 1949, the Conejos water conservancy district is obligated to repay 60 percent of the cost of the Platoro unit, not to

exceed \$2,520,000, in 40 consecutive annual installments commencing in 1959. The first 5 of such installments will vary from 1¼ percent of the total obligation to 2¼ percent. The remaining 35 installments will be in equal amounts.

During the 5-year development period, 1954–58, operation and maintenance costs are provided for by appropriated funds. The Conejos water conservancy district will repay the portion of this operation and maintenance costs allocated to irrigation, 60 percent, through water service charges. After the development period, funds for operation and maintenance will be advanced by the water users or they will assume the operation and maintenance responsibility.

CONTRACT

1949, March 3: Contract Ilr-1529 with the Conejos water conservancy district to repay 60 percent of cost of Platoro unit, not to exceed \$2,520,000.

Operation and maintenance water service collections history

Fiscal year	Accruals	Collections
1954.....	\$2, 500	0
1955.....	4, 500	\$2, 500
1956.....	6, 000	4, 500
1957.....		6, 000
Total.....	13, 000	13, 000

SANPETE PROJECT

SPRING CITY AND EPHRAIM, UTAH

The construction of Sanpete project in Sanpete County, Utah, was initiated under the provisions of the National Industrial Recovery Act of June 16, 1933, and approved by the President on November 6, 1935, under the terms of subsection B, section 4, act of December 5, 1924 (43 Stat. 701).

The project was developed to furnish water to lands under the Ephraim Irrigation Co. and the Horseshoe Irrigation Co. Project features include the Ephraim tunnel and 2 feeder canals and the Spring City tunnel and 2 feeder canals. The project consists of the Ephraim division and the Spring City division.

EPHRAIM DIVISION

The total cost of constructing the Ephraim division was \$206,510. The entire amount, less contributions of \$1,164 and CCC costs of \$14,400, is repayable under the terms of the repayment contract with Ephraim Irrigation Co. The project features are operated and maintained by the Ephraim Irrigation Co.

CONTRACTS

1934, July 11: Contract Ilr-765, with Ephraim Irrigation Co. Contract obligation \$190,000, payable in 40 equal annual installments.

1939, September 27: Supplemental contract Ilr-765 with Ephraim Irrigation Co. increased contract obligation \$1,000.

Construction repayment history—Ephraim division—Ephraim Irrigation Co.

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1935	\$190,000							
1936	190,000							
1937	191,000							
1938	191,000							
1939	191,000							
1940	191,000	¹ \$2,375		\$2,375	\$2,375		\$2,375	\$2,375
1941	191,000	4,776		4,776	4,776		4,776	7,151
1942	191,000	4,775		4,775	4,775		4,775	11,926
1943	190,946	4,774		4,774	4,774		4,774	16,700
1944	190,946	4,774		4,774	4,774		4,774	21,474
1945	190,946	4,774		4,774	4,774		4,774	26,248
1946	190,946	4,774		4,774	4,774		4,774	31,022
1947	190,946	4,774		4,774	4,774		4,774	35,796
1948	190,946	4,774		4,774	4,774		4,774	40,570
1949	190,946	4,774		4,774	4,774		4,774	45,344
1950	190,946	4,774		4,774	4,774		4,774	50,118
1951	190,946	4,774		4,774	4,774		4,774	54,892
1952	190,946	4,775		4,775	4,775		4,775	59,667
1953	190,946	4,775		4,775	4,775		4,775	64,442
1954	190,946	4,775		4,775	4,775		4,775	69,217
1955	190,946	4,774		4,774	4,774		4,774	73,991
1956	190,946	4,774		4,774	4,774		4,774	78,765
1957	190,946	4,774		4,774	4,774		4,774	83,539
Total		83,539		83,539	83,539		83,539	
Collected				83,539				
Uncollected				0				

¹ Ephraim Irrigation Co. installment deferred under act of Aug. 4, 1939, \$2,375.

The summary of status of the Ephraim division repayment contracts:

Total value of contracted repayment.....	\$190, 946
Total matured charges.....	83, 539
Total matured charges repaid.....	83, 539
Total matured charges unpaid.....	0

SPRING CITY DIVISION

The total cost of constructing the Spring City division was \$227,430. The entire amount less CCC costs of \$45,000 is repayable under terms of repayment contract with the Horseshoe Irrigation Co. The project features are operated by the Horseshoe Irrigation Co.

CONTRACTS

1935, May 31: Contract Ilr-803 with Horseshoe Irrigation Co. Contract obligation \$175,000, payable in 40 equal annual installments.

1939, January 16: Supplemental contract Ilr-803 with Horseshoe Irrigation Co. increased contract obligation \$10,000.

The summary of status of the Spring City division repayment contracts:

Total value of contracted repayment.....	\$182, 430
Total matured charges.....	72, 981
Total matured charges repaid.....	72, 981
Total matured charges unpaid.....	0

Construction repayment history—Spring City division—Horseshoe Irrigation Co.

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1935.....	\$175, 000							
1936.....	185, 000							
1937.....	185, 000							
1938.....	185, 000							
1939.....	185, 000							
1940.....	185, 000							
1941.....	183, 100							
1942.....	183, 100	\$4, 575		\$4, 575	\$2, 535		\$2, 535	\$2, 535
1943.....	182, 430	4, 561		4, 561	2, 412	\$2, 040	4, 452	6, 987
1944.....	182, 430	4, 560		4, 560	2, 660	2, 149	4, 809	11, 796
1945.....	182, 430	4, 561		4, 561	936	1, 900	2, 836	14, 632
1946.....	182, 430	4, 561		4, 561	707	3, 625	4, 332	18, 964
1947.....	182, 430	4, 560		4, 560	440	3, 854	4, 294	23, 258
1948.....	182, 430	4, 560		4, 560	2, 447	4, 120	6, 567	29, 825
1949.....	182, 430	4, 560		4, 560	4, 560	420	4, 980	34, 805
1950.....	182, 430	4, 561		4, 561	3, 286	1, 694	4, 980	39, 785
1951.....	182, 430	4, 561		4, 561	3, 261	2, 574	5, 835	45, 620
1952.....	182, 430	4, 560		4, 560	4, 560		4, 560	50, 180
1953.....	182, 430	4, 560		4, 560	4, 560		4, 560	54, 740
1954.....	182, 430	4, 560		4, 560	4, 560		4, 560	59, 300
1955.....	182, 430	4, 560		4, 560	4, 560		4, 560	63, 860
1956.....	182, 430	4, 561		4, 561	4, 561		4, 561	68, 421
1957.....	182, 430	4, 560		4, 560	4, 560		4, 560	72, 981
Total Collected.....		72, 981		72, 981	50, 605	22, 376	72, 981	
Uncollected.....				0				

The allocation and repayment of costs:

Item	Ephraim division	Spring City division	Total
Total project cost.....	\$206, 510	\$227, 430	\$433, 940
Allocation of costs:			
Irrigation.....	206, 510	227, 430	433, 940
Less:			
Contributions.....	* 1, 164		1, 164
CCC costs.....	14, 400	45, 000	59, 400
Total repayment obligation.....	190, 946	182, 430	373, 376

SANTA MARIA PROJECT

SANTA MARIA, CALIF.

The Santa Maria project, located in northern Santa Barbara County and southern San Luis Obispo County, was authorized by act of September 3, 1954 (68 Stat. 1190).

The purpose of the project is to provide supplemental irrigation water to the project area by releases into the stream channels for ground-water recharge. The project will also provide some flood-control benefits and is related to authorized Corps of Engineers project for levee construction downstream.

Vaquero Dam and Reservoir, with a capacity of 239,000 acre-feet, will store surplus water of the Cuyama River and release flows after peak discharges on the Sisquoc River have passed. The released flows will recharge the ground water of the area. Substantially all of the land to benefit from the project is included in the Santa Maria Valley water conservation district, which has entered into a repayment contract with the Santa Barbara County Water Agency. The repayment

contract required by the authorizing act was signed by the Santa Barbara County Water Agency on April 6, 1956. Under this member unit contract, the Santa Maria district is to repay the reimbursable costs of the project less a payment of \$50,000 per year which will be met by an ad valorem countywide tax levied by the agency.

The estimated project cost is \$15,058,000, of which \$3,013,000 is allocated to flood control and is nonreimbursable. The remainder will be repaid in 80 equal semiannual installments to begin after a 2-year development period. The 2-year development period is to begin with the first year in which the reservoir stores water.

The project works will be transferred to the Santa Maria Valley water conservation district for operation upon their completion.

CONTRACT

1956, April 6: Contract 14-06-200-5366 with Santa Barbara County Water Agency for \$13,969,000.

SCOFIELD PROJECT

PRICE, UTAH

The construction of the Scofield project in Carbon County, Utah, was approved by the President on June 24, 1943, under the terms of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended.

The project was developed to replace the deteriorated Scofield Dam in danger of failure, to provide supplemental water to about 16,000 acres, afford flood protection, and preserve fish life. Project features include the Scofield Dam and Reservoir.

Operation and maintenance of the project was transferred to the district on April 1, 1949.

The total cost of constructing the project features was \$943,837. The reimbursable portion of this cost, \$247,000, is repayable under the terms of the repayment contracts with the Carbon water conservancy district and the Utah State Fish and Game Department.

The cost and repayment allocations:

Total project cost	\$943, 837
<hr/>	
Allocation of reimbursable costs:	
Irrigation	216, 000
Fish and wildlife	31, 000
<hr/>	
Subtotal	247, 000
<hr/>	

268

Nonreimbursable costs:

Irrigation (act of Aug. 11, 1939 as amended) ..	\$303, 837
Flood control	393, 000
<hr/>	
Subtotal	696, 837
<hr/>	

Repayment of reimbursable costs:

From irrigation water users	216, 000
From Utah State Fish and Game Department	31, 000
<hr/>	
Total	247, 000

CONTRACTS

- 1943, October 11: Contract Ilr-1406, between Carbon water conservancy district, the Price River water conservation district, and the United States setting forth certain precedents to actual construction.
- 1944, February 28: Repayment contract Ilr-1415 with Carbon water conservancy district provides for reimbursable construction cost of \$216,000 to be paid by district in 40 equal annual installments.
- 1944, May 26: Contract Ilr-1420 with State of Utah Fish and Game Department provides for use by the State of the inactive reservoir capacity and payment of \$31,000 of the project construction cost.

The summary of status of repayment contracts:

Total value of contracted repayment	\$247, 000
Total matured charges	85, 000
Total matured charges repaid	85, 000
Total matured charges unpaid	0

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1945-----	\$247, 000	\$10, 000	-----	\$10, 000	\$10, 000	-----	\$10, 000	\$10, 000
1946-----	247, 000	10, 000	-----	10, 000	10, 000	-----	10, 000	20, 000
1947-----	247, 000	11, 000	-----	11, 000	11, 000	-----	11, 000	31, 000
1948-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	36, 400
1949-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	41, 800
1950-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	47, 200
1951-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	52, 600
1952-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	58, 000
1953-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	63, 400
1954-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	68, 800
1955-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	74, 200
1956-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	79, 600
1957-----	247, 000	5, 400	-----	5, 400	5, 400	-----	5, 400	85, 000
Total-----	-----	85, 000	-----	85, 000	85, 000	-----	85, 000	-----
Collected-----	-----	-----	-----	85, 000	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	0	-----	-----	-----	-----

SHOSHONE PROJECT

CODY, WYO.

The Shoshone project, originally called Cody project, was approved by the Secretary of the Interior February 10, 1904, under authority of the Reclamation Act of June 17, 1902. Heart Mountain power development was found feasible by the Secretary on June 19, 1945, under the provisions of section 9 of the Reclamation Project Act of 1939 (53 Stat. 1193). The Shoshone extensions were authorized as part of the Missouri River Basin project under the provisions of the Flood Control Acts of 1944 and 1946.

The main objective of the project is the provision for irrigating approximately 95,000 acres in public land homesteads which are considered irrigable. The power development features of the project, a normal utilization of the potential energy made available by the dam and reservoir, provides electric energy for large areas of Wyoming. Principal features of the project consist of Buffalo Bill Dam and Reservoir, Shoshone and Heart Mountain powerplants and attendant power transmission facilities, and the Garland, Frannie, Willwood, and Heart Mountain irrigation divisions.

The reserved works, including the dam, powerplants, and transmission system, and Heart Mountain division are operated by the United States. The Buffalo Bill Dam and Reservoir and a portion of the carriage works of the project will also serve lands of the Shoshone Extensions Unit, Missouri River Basin project, of which approximately 2,120 acres may be transferred to the Heart Mountain division. Operation of the reserved works is financed partly by advances from water users and partly from direct appropriations.

The total estimated construction cost of the completed project, including the irrigation and power divisions, Buffalo Bill Dam and Reservoir (\$2,329,478) and an estimate of \$706,000 for rehabilitation and betterment work is \$23,765,230, of

which \$6,061,250 is reimbursable from power revenues, \$1,960,619 has been written off by the acts of May 25, 1926, May 6, 1949, and July 14, 1954, and \$16,130,152 is to be repaid by the water users.

FRANNIE DIVISION

The total costs of the Frannie Division including \$257,000 for rehabilitation and betterment and \$29,973 for transitional development costs are \$3,010,514. In addition to these costs, the water users have contracted to repay \$170,250 as their share of the storage works, and funded charges in the amount of \$223,419. The entire amount, with the exception of \$1,228,876 charged off by authority of the act of May 25, 1926, and \$37,069 of water users' equity in the system is repayable. Operation and maintenance of the division was assumed by the Deaver irrigation district in 1930. The district pays its share of the cost of operating the reserved works by advances to the United States.

There are 20,083 irrigable acres in the division.

Repayment contracts.—The original Deaver irrigation district repayment contract was signed on December 22, 1926. The amendatory contract, signed on November 14, 1949, provides for the repayment of a construction charge obligation of not to exceed \$2,137,259 in annual installments of \$7,500 each. The district may elect to make payment under an agricultural parity-price formula.

Individual contracts within Frannie division provide for the repayment of \$6,558 in construction cost for Montana lands outside of the Deaver irrigation district. In addition, the town of Deaver, Wyo., has contracted for the repayment of \$5,000 for the right to the use of not to exceed 125 acre-feet of water per calendar year.

As of June 30, 1957, there were no delinquent payments on the construction obligation.

PUBLIC NOTICES AND CONTRACTS

- 1917, August 31: Public notice. Construction charge \$66 per acre, 20 graduated installments.
- 1919, August 21: Public notice. Construction charge \$90 per acre, 20 graduated installments.
- 1920, January 28: Public notice. Construction charge \$95 per acre, 20 years.
- 1921, July 19: Public notice. Construction charge \$100 per acre, 20 years.
- 1922, June 3: Public notice. Supplemental construction of drainage works, \$30 per acre, payable in 4 equal annual installments.
- 1924, February 7: Order suspending all public notices and placing division on a water rental basis.
- 1926, December 22: Contract Ilr-97 with Deaver irrigation district, under which District assumes obligation to pay the construction cost of Frannie division, payments to be made on crop-production basis, beginning with the year 1932.
- 1933, June 3: Amendment to 1926 contract. Construction payments 1933-42 postponed to enable district to construct needed drains.
- 1948, June 1: Amendment to 1926 contract. Partial deferment of 1948-49 construction payments pending negotiation of an amendatory repayment contract.
- 1949, November 14: Amendatory repayment contract Ilr-1556 with Deaver irrigation district providing for repayment of construction charge obligation, not to exceed \$2,137,259, including expenditures for rehabilitation and betterment, in annual installments of \$7,500 each beginning in 1952. Payment of 1950 construction charge deferred to permit establishment of reserve fund for operation and maintenance. This contract also provided for the United States to advance a total of \$213,000 to the district to finance an irrigation works and land rehabilitation program. In return for the \$213,000 payment, the district agreed to the inclusion in its repayment obligation of \$170,250 to cover a proportionate share of the cost of Buffalo Bill Reservoir and further relinquish all claims to share in the net revenues and operation of the Shoshone Project powerplants.
- 1953, December 28: Contract No. 14-06-600-513 with the town of Deaver, Wyo., for the repayment of \$5,000 for the right to take and use not more than 125 acre-feet of water per calendar year.

The summary of status of the Frannie division repayment contracts:

Total value of contracted repayment.....	\$2, 148, 817
Total matured charges.....	183, 816
Total matured charges repaid.....	183, 816
Total matured charges unpaid.....	0

GARLAND DIVISION

The total costs including funded charges assignable to the Garland division are \$3,926,156. The act of May 25, 1926, authorized writeoff of construction charges amounting to \$316,253. The act of July 14, 1954, authorized writeoff of

\$405,647; this act also authorized crediting of the Shoshone irrigation district with a share of the net revenues from Shoshone powerplant, amounting to \$426,000, to be applied on the payment of annual construction charges for 1954 and subsequent years until such credit is exhausted. In return for the \$426,000 credit, the district, by amendatory contract of March 29, 1955, pursuant to this act, relinquished all claims to share in the operation of and net revenues from the Shoshone project powerplants. In addition, the water users' have an equity of \$15,622 in the system. Operation and maintenance of the division was assumed by the Shoshone irrigation district in 1927. The district pays its share of the cost of operation of the project storage works. There are 35,950 irrigable acres in the division.

Repayment contracts.—The Shoshone irrigation district repayment contract was signed November 4, 1926, and provides for variable annual payments amounting to 5 percent of the average annual gross crop value per acre of the previous 10 years. As of June 30, 1956, the district had repaid a total of \$2,294,335 which had become due on its construction charge obligation.

PUBLIC NOTICES AND CONTRACTS

- 1907, November 25: Public notice, \$45 per acre, 10 equal annual installments.
- 1909, May 8: Public notice, \$46 per acre, 10 equal annual installments.
- 1911, May 20: Public notice, \$47 per acre, 10 equal annual installments.
- 1912, February 9: Public notice, increased rates for those in arrears to \$50, \$51, and \$52 per acre, and graduated installments over 10-year period.
- 1912, March 23: Public notice for additional homesteads. Rate \$52 per acre, 10 graduated installments.
- 1915, September 25: Public notice for supplemental construction of drainage works. Rate \$7 per acre, payable in additional installments after 20-year period allowed by Extension Act.
- 1917, February 10: Public notice for additional lands. Rate \$59 per acre, 20 graduated installments.
- 1918, July 17: Supplemental construction of drainage works. Rate \$12.50 per acre. Additional installments after 20-year period.
- 1921, July 19: Public notice for additional lands. Rate \$100 per acre, 20 years.
- 1923, April 28: Public notice covering supplemental construction of drainage works. Rate \$11 per acre, payable in 3 installments.
- 1926, November 4: Contract Ilr-88 with Shoshone irrigation district. District assumed obligations of individual water users. Unpaid balances to be paid by district in semiannual installments based on 5 percent of average gross annual per acre income from crops.

- 1929, June 3: Contract Ilr-562 with town of Powell, Wyo., for repayment of \$5,250 construction costs.
- 1949, April 2: Contract I79r-1404 with Wyoming Game and Fish Commission for repayment of \$1,466.21 construction costs.
- 1955, March 29: Amendatory repayment contract 14-06-W-93 with Shoshone irrigation district to establish the irrigable acreage of the Garland division at 35,950 irrigable acres, a net reduction of 6,008 irrigable acres in the division as determined by a reclassification survey in 1951, resulting in a reduction of \$572,459 in the repayment obligation of the district; to credit the Shoshone irrigation district with a share of the net power revenues from Shoshone powerplant, amounting to \$426,000, to be applied on payment of annual construction charges for 1954 and subsequent years until the credit is exhausted; and to establish as \$340,500 the cost of the Buffalo Bill Dam and Reservoir assignable to the district.

The summary of status of the Garland division repayment contracts:

Total value of contracted repayment.....	\$3, 188, 635
Total matured charges.....	2, 361, 769
Total matured charges repaid.....	2, 361, 769
Total matured charges unpaid.....	0

HEART MOUNTAIN DIVISION

The Heart Mountain division is the latest of four irrigation divisions of the Shoshone project to be constructed. Construction was started in 1936, and the distribution system was completed in 1948 except for canal lining and drainage. Project works, consisting of Buffalo Bill Dam and Reservoir and the Shoshone Canyon conduit and appurtenant works serve the Heart Mountain division and will serve, in addition, the proposed Shoshone extensions unit of the Missouri River Basin project. There are 25,973 acres of irrigable land in the Heart Mountain division, with the possibility of 2,120 irrigable acres being added from the Ralston Flat and North Cody Bench areas if they should be transferred from the Shoshone extensions unit of the Missouri River Basin project.

The total estimated cost of constructing the Heart Mountain division is \$8,031,729. This cost covers the Heart Mountain share of features to be used jointly by the Heart Mountain division, the Power division, and the Shoshone extensions unit. Operation and maintenance of the Heart Mountain division prior to the negotiation of a repayment contract is performed by the United States.

Public notices of October 3, 1946, July 7, 1947, and March 18, 1949, opening public land in Heart

Mountain division for settlement, provide that when the total construction charge has been determined and allocated by the Secretary of the Interior, a supplementary notice announcing the total per acre charges will be issued. A repayment contract is being negotiated with the Heart Mountain irrigation district. A small acreage of irrigable land in the the division is available for amendment of existing units.

WILLWOOD DIVISION

The total estimated cost of constructing the Willwood division is \$1,878,818, which includes \$449,000 for rehabilitation and betterment of the irrigation works in the division. Of the total amount of construction cost, \$9,843 has been charged off by the act of May 6, 1949. In addition, the water users have an equity of \$7,464 in the system. The Willwood irrigation district has contracted to repay \$1,870,157. Operation and maintenance of the division was transferred to the Willwood irrigation district on January 1, 1949, under terms of an interim contract, pending approval of the repayment contract.

This division consists of 11,595 acres of irrigable land.

Repayment contracts.—The Willwood irrigation district construction repayment contract, signed May 13, 1949, provides for the repayment of a construction charge obligation of \$1,500,000, of which part is for rehabilitation and betterment of district irrigation works. An amendatory contract, dated June 30, 1952, provides for the payment of \$380,000 for additional rehabilitation and betterment work. Repayment is to be made in annual installments of \$27,400, provided that the district may elect to pay annual installments in accordance with a variable agricultural price-parity formula with base annual installments of \$24,600. The \$164,400 due to June 30, 1956, has been paid on schedule. The district shares in the cost of operating the reserved works.

PUBLIC NOTICES AND CONTRACTS

- 1927, May 11: Public notice. Homesteaders required to pay a certain construction charge per acre in 20 graduated annual installments.
- 1928, June 25: Public notice. Repayment of certain construction charges per acre in 20 graduated annual installments.
- 1929, May 10: Public notice. Repayment of certain construction charges per acre in 20 graduated annual installments.

- 1931, April 22: Public notice. Repayment of certain construction charges per acre in 20 graduated installments.
- 1935, June 18: Public notice. Repayment of certain construction charges per acre in 20 graduated installments.
- 1938, June 22: Public notice. Repayment of certain construction charges per acre in 20 graduated installments.
- 1949, May 13: Contract 11r-1540 with Willwood irrigation district. Repayment of \$1,500,000 construction charge obligation in annual installments of \$27,400 beginning in 1951.
- 1952, June 30: Amendatory repayment contract 179r-2445 increased district's obligation by \$380,000 to cover additional rehabilitation and betterment work. Repayment of annual rate of \$27,400 to commence on completion of payment on May 13, 1949, contract.

The summary of status of the Willwood division repayment contracts:

Total value of contracted repayment-----	\$1, 870, 157
Total matured charges-----	183, 424
Total matured charges repaid-----	183, 424
Total matured charges unpaid-----	0

POWER DIVISION

The total estimated cost of the power facilities is \$4,275,794, which includes the Power division's share of the storage works, \$866,963. The Power division will also repay from surplus power revenues a total of \$1,492,312, representing a share of the storage works utilized by irrigation and allocated as noninterest bearing investment from all divisions of the project as well as undeveloped areas in the Shoshone extensions unit of the Missouri River Basin project (\$1,698,571); a share of the storage works allocated to Garland and Frannie divisions (\$639,000); and a share of the Shoshone Canyon conduit (\$312,311) to be repaid as yearly rentals.

The Power division is operated by Government forces.

The cost of the division is summarized as follows:

Construction (electric plant in service)-----	\$3, 408, 831
Shoshone Canyon conduit rentals-----	312, 311
Irrigation costs to be repaid from power revenues-----	3, 829, 883
Storage system allocated to power-----	866, 963
Total-----	8, 417, 988

As a part of the operating cost, the division annually pays rent for the use of the Shoshone Canyon conduit by the Heart Mountain power-

plant. It is currently estimated that by the end of the repayment period, the Power division will have paid \$312,311 in rent, which sum may be credited against the cost of construction of the conduit.

The total estimated cost of the power facilities is \$3,408,831. The facilities include Shoshone powerplant with a rated capacity of 5,600 kilowatts in three units, the Heart Mountain powerplant with a rated capacity of 5,000 kilowatts in one unit, 158.4 miles of transmission lines, five substations with a capacity of 26,225 kilovolt-amperes and associated general property. In addition, \$866,963 is allocated to the Power division as an appropriate share of the project storage works. Revenues from the sale of power will amortize these direct and allocated power costs and will also accumulate a substantial surplus to the United States for credit against irrigation investments.

As a part of the annual power operating costs, the Power division pays an annual rental for the use of the Shoshone Canyon conduit by the Heart Mountain powerplant, which annual rental contributes toward amortization of the conduit cost and lessens the repayment obligation of irrigation. The sum total of these rental payments by the end of the repayment period, as based upon the use of total capacity for power generation, is currently estimated to be \$312,311.

PAYOUT OF CONSTRUCTION COSTS

Deaver irrigation district.—On June 30, 1957, the unmatured balance of \$1,965,001 amounted to 91 percent of the district's total obligation. The district's repayment contract provides that the 8,043 acres of class 5 land will be reclassified to class 6, or to pay class prior to November 1959, at which time the annual installment will be increased by 62.5 cents per acre in excess of 12,000 acres of assessable land in the district. For each acre of class 5 land that is determined to be permanently unproductive, the repayment obligation will be reduced by \$68.51. The current annual installment of \$7,500 per year may be modified also by the optional application of a formula to vary annual payments with economic conditions.

Shoshone irrigation district.—Seventy-four percent of the district's repayment obligation had been paid on June 30, 1957, leaving \$826,866 as

RECLAMATION REPAYMENTS

Tentative allocations and repayment of costs—Shoshone project¹

Item	Power	Irrigation					Total
		Garland	Framble	Willwood	Heart Mountain	Undeveloped areas (Shoshone extensions)	
Total estimated or actual cost:							
Joint facilities:							
Construction and modification—							
Buffalo Bill Dam and Reservoir—							
Shoshone Canyon conduit—	\$866, 963	\$340, 500	\$170, 250		\$440, 307	\$888, 963	\$2, 621, 751
Heart Mountain Canal—					1, 521, 811	809, 608	1, 641, 581
Irrigation facilities:							
Construction—		3, 355, 878	2, 723, 540	\$1, 354, 176	5, 464, 900		12, 898, 494
Rehabilitation and betterment—			257, 000	449, 000			706, 000
Funded charges—		217, 389	223, 419	46, 558			487, 366
Power facilities—							
Transitional development—	3, 408, 831	12, 389	29, 973	29, 085	604, 711		3, 408, 831
Total project cost—	4, 275, 794	3, 926, 156	3, 404, 182	1, 878, 819	8, 031, 729	1, 698, 571	24, 771, 600
Repayment:							
Reductions authorized—							
Contributions—		2 721, 900	3 1, 228, 876	9 843			1, 960, 619
From power revenues:			1, 900				3, 900
For powerplant—							
For Buffalo Bill Dam and Reservoir—	3, 408, 831						3, 408, 831
construction and modification—		340, 500	170, 250				2, 619, 751
For irrigation facilities—	866, 963	85, 500	42, 750				128, 250
For Shoshone Canyon conduit—							312, 311
From water users:							
For construction costs—		2, 545, 245	1, 455, 398	1, 374, 570	7, 910, 061	1, 698, 571	14, 983, 845
For rehabilitation and betterment costs—							
For funded charges—			257, 000	449, 000			706, 000
Miscellaneous revenues—		217, 389	223, 419	46, 588			487, 396
		15, 622	37, 069	7, 464	121, 668		181, 823
Total repayment—	4, 275, 794	3, 926, 156	3, 416, 662	1, 887, 465	8, 031, 729	1, 698, 571	24, 792, 726
Water user contracts:							
Contracted—		3, 188, 635	2, 148, 817	1, 870, 157			7, 207, 609
Power revenue credits—		(426, 000)	(213, 000)				(639, 000)
Pending—							9, 608, 632
Adjustments—			12, 480	8, 646			21, 126

¹ The following acreages were used in the allocation of pertinent costs: 45,994, Garland; 38,000, Framble; 11,935, Willwood; 28,963, Heart Mountain; and 56,720 to the undeveloped areas in the Shoshone extensions of the Missouri River Basin project.

² \$316,253 act of May 25, 1926; and \$405,647 act of July 14, 1954.

³ Act of May 25, 1926.

⁴ Act of May 6, 1949.

the remaining unmatured balance. Since the contract provides for differential payments by land-class and since the district obligation is the summation of the obligations of individual tracts, the class 1 and 2 lands become paid up first. At this time, 26 percent of the irrigable lands are entirely paid up. More than one-half of the irrigable acreage will be paid up within the next few years. The actual rate of payout will vary also with gross crop value per acre which determines the annual

acre payment. The 1957 installment amounted to \$67,433.

Willwood irrigation district.—About 10 percent of the district's obligation has been paid thus far, leaving \$1,686,733 as the unmatured balance. If the optional basis for varying annual payments with economic conditions is not exercised, the fixed annual installment of \$27,400 per year will pay out the remaining unmatured obligation in 62 years.

Construction repayment history—Deaver irrigation district¹

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1918	\$611,302	\$30,565		\$30,565	\$30,565		\$30,565	\$30,565
1919	766,699	7,767		7,767	7,767		7,767	38,332
1920	1,685,372	45,749		45,749	45,448		45,448	83,780
1921	1,750,820	2,911		2,911	2,911	\$301	3,212	86,992
1922	1,958,474	10,461		10,461	10,461		10,461	97,453
1923	2,656,125	24,717		24,717	2,341	² 1,838	503	97,956
1924	² 2,572,066	29,596	² \$2,179	27,417	1,242	² 2,181	² 939	97,017
1925	² 2,471,059	7,747	² 7,593	154	684	² 5,040	² 4,356	92,661
1926	² 1,968,132	10,795	² 28,708	² 17,913	430	² 19,090	² 18,660	74,001
1927	² 1,805,949	(³)	² 10,961	² 10,961		² 6,667	² 6,667	67,334
1928	² 1,700,801	(³)	² 7,275	² 7,275		² 3,946	² 3,946	63,388
1929	1,719,151	(³)	² 7,610	² 7,610		² 3,642	² 3,642	59,746
1930	1,719,998	(³)	² 46,746	² 46,746		² 509	² 509	59,237
1931	1,717,451	(³)	² 296	² 296		² 296	² 296	58,941
1932	1,718,080	1,261	833	2,094	1,261	833	2,094	61,035
1933	1,718,080	(⁴)		0			0	61,035
1934	1,724,365	⁴ 61	² 769	² 708	61	² 769	² 708	60,327
1935	1,724,365	⁴ 61		61	61		61	60,388
1936	1,724,365	⁴ 61		61			0	60,388
1937	1,724,365	⁴ 62		62		61	61	60,449
1938	1,724,365	⁴ 61		61		62	62	60,511
1939	1,724,365	⁴ 123		123		61	61	60,572
1940	1,724,365	⁴ 123		123		123	123	60,695
1941	1,724,365	⁴ 123		123			0	60,695
1942	1,724,365	⁴ 122		122		245	245	60,940
1943	1,724,365	2,718		2,718	448	122	570	61,510
1944	1,724,365	7,425		7,425	7,302	2,271	9,573	71,083
1945	1,724,365	11,499		11,499	11,376	123	11,499	82,582
1946	1,724,365	14,796		14,796	12,422	122	12,544	95,126
1947	1,724,365	8,486		8,486	8,363	2,374	10,737	105,863
1948	1,724,365	9,457		9,457	9,334	123	9,457	115,320
1949	1,724,365	13,639		13,639	13,464	123	13,587	128,907
1950	⁵ 2,143,817	4,675		4,675	4,500	175	4,675	133,582
1951	2,143,817	4,675		4,675	4,500		4,500	138,082
1952	2,143,817	8,211		8,211	8,211	350	8,561	146,643
1953	2,143,817	7,675		7,675	7,675		7,675	154,318
1954	2,148,817	7,800		7,800	7,800		7,800	162,118
1955	2,148,817	7,800		7,800	7,800		7,800	169,918
1956	2,148,817	7,800		7,800	7,800		7,800	177,718
1957	2,148,817	7,800	⁶ —1,702	6,098	7,800	⁶ —1,702	6,098	183,816
Total		296,822	—113,006	183,816	222,027	—38,211	183,816	
Collected				183,816				
Uncollected				0				

¹ Includes payments under individual contracts in Frannie division for which Deaver irrigation district makes collections as fiscal agent for the United States.

² Decrease, due to cancellation of individual water-right applications.

³ No payments due under contract of Dec. 22, 1926.

⁴ Suspension of construction charge payments, contract of June 3, 1933.

⁵ Amendatory contract, Nov. 14, 1949.

⁶ Maturities transferred, Public Law 258.

Construction repayment history—Shoshone irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1908		\$7,066		\$7,066	\$3,315		\$3,315	\$3,315
1909		36,928		36,928	35,802	\$3,751	39,553	42,868
1910		50,922		50,922	25,008	408	25,416	68,284
1911		87,697	¹ \$10,601	77,096	27,442	¹ 8,427	19,015	87,299
1912		66,509	¹ 38,491	28,018	15,136	35,744	50,880	138,179
1913		71,466	¹ 27,224	44,242	14,130	34,557	48,687	186,866
1914		97,906	¹ 12,145	85,761	12,459	6,119	18,578	205,444
1915	² \$1,514,591	32,897	¹ 122,789	¹ 89,892	28,651	1,432	30,083	235,527
1916	1,942,552	29,514	¹ 3,522	25,992	23,962	934	24,896	260,423
1917	2,214,963			31,768			33,574	293,997
1918	2,245,778			22,925			23,738	317,735
1919	2,768,791			50,551			47,971	365,706
1920	2,830,261			47,994			46,739	412,445
1921	2,835,753	³ 646,025		79,425	³ 306,147		42,604	455,049
1922	2,940,730			87,691			28,974	484,023
1923	2,934,414			91,437			27,477	511,500
1924	3,330,508			84,957			16,852	528,352
1925	3,294,790			52,870			9,148	537,500
1926	3,193,476			96,407			29,070	566,570
1927	⁴ 3,843,138	3,294	¹ 327,909	¹ 324,615	771	9,827	10,598	577,168
1928	3,838,926	40,982	1,246	42,228	39,691	380	40,071	617,239
1929	3,859,880	55,929	¹ 12,282	43,647	55,642	¹ 1,070	54,572	671,811
1930	3,865,616	48,110	¹ 1,433	46,677	47,974	¹ 196	47,778	719,589
1931	3,870,131	43,139		43,139	42,739	253	42,992	762,581
1932	3,868,177	⁷ 8,051	¹ 1,914	6,137	7,423	¹ 1,625	5,798	768,379
1933	3,872,085	⁷ 1,101	¹ 5,916	¹ 4,815	902	¹ 4,923	¹ 4,021	764,358
1934	⁶ 3,730,755	⁷ 1,315	¹ 263	1,052	1,055	¹ 198	857	765,215
1935	3,732,144	⁷ 156,723	¹ 409	⁸ 156,314	⁸ 156,723	¹ 210	⁸ 156,513	921,728
1936	3,728,541	⁷ 2,071	¹ 121	1,950	1,860		1,860	923,588
1937	3,734,605	⁷ 23,537	¹ 1,085	22,452	23,357	¹ 800	22,557	946,145
1938	3,734,605	46,686		46,686	46,469	176	46,645	992,790
1939	3,734,605	46,710		46,710	46,360	137	46,497	1,039,287
1940	3,737,706	46,387		46,387	46,233	110	46,343	1,085,630
1941	3,739,356	44,346		44,346	44,294	90	44,384	1,130,014
1942	3,737,649	44,622	¹ 1,422	43,200	44,622	¹ 983	43,639	1,173,653
1943	⁹ 3,816,569	50,502		50,502	50,502		50,502	1,224,155
1944	⁹ 3,899,086	57,941	¹ 102	57,839	57,941	¹ 102	57,839	1,281,994
1945	⁹ 3,843,231	63,844	¹ 2,124	61,720	63,844	¹ 2,124	61,720	1,343,714
1946	3,843,231	68,508		68,508	68,508		68,508	1,412,222
1947	3,843,212	71,882		71,882	71,882		71,882	1,484,104
1948	3,843,212	77,058		77,058	77,058		77,058	1,561,162
1949	3,843,212	86,304		86,304	86,304		86,304	1,647,466
1950	3,843,212	94,300		94,300	94,300		94,300	1,741,766
1951	3,843,212	96,569		96,569	96,569		96,569	1,838,335
1952	¹⁰ 3,761,094	99,858		99,858	99,858		99,858	1,938,193
1953	3,761,094	101,358		101,358	101,358		101,358	2,039,551
1954	3,761,094	101,598		101,598	101,598		101,598	2,141,149
1955	¹¹ 3,188,635	78,798		78,798	78,798		78,798	2,219,947
1956	3,188,635	74,388		74,388	74,388		74,388	2,294,335
1957	3,188,635	67,433		67,433	67,433		67,433	2,361,768
Total.....		2,930,274	—568,506	2,361,768	2,288,508	73,260	2,361,768	-----
Collected.....				2,361,768				-----
Uncollected.....				0				-----

¹ Decrease.² Reclamation Extension Act, Aug. 13, 1914, delinquent charges funded.³ Temporary relief acts Mar. 31, 1922, Feb. 28, 1923, and May 9, 1924.⁴ Increase in obligation due to funding of delinquent operation and maintenance charges and penalties, and penalties on delinquent construction charges, to be paid as construction.⁵ 1927 District contract.⁶ Decrease in obligation due to adjustment of supplemental construction from public notice rates to actual cost.⁷ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934,

June 13, 1935, and Apr. 14, 1936. Charges deferred for calendar years 1931, \$45,993; 1932, \$43,649; 1933, \$42,060; 1934, \$41,849; 1935, \$40,189; 1936, \$20,299.

⁸ Includes accumulated profits from rental of lands and sale of town lots, \$156,141.⁹ Increase of obligation due to adding value of water rights for lands sold under Act of May 16, 1930. Adjustment decrease in 1945 due to rejection of some sale contracts by Bureau of Land Management.¹⁰ Reduced by excess operation and maintenance receipts of \$82,118.¹¹ 1955 amendatory district contract.

Construction repayment history—Willwood irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1928								
1929								
1930								
1931								
1932								
1933								
1934								
1935								
1936								
1937								
1938								
1939								
1940								
1941								
1942								
1943								
1944								
1945								
1946								
1947								
1948								
1949								
1950	\$1, 500, 000							
1951	1, 500, 000	\$27, 400		\$27, 400	\$27, 400		\$27, 400	\$27, 400
1952	¹ 1, 490, 157	27, 400		27, 400	27, 400		27, 400	54, 800
1953	² 1, 870, 157	27, 400		27, 400	27, 400		27, 400	82, 200
1954	1, 870, 157	27, 400		27, 400	27, 400		27, 400	109, 600
1955	1, 870, 157	27, 400		27, 400	27, 400		27, 400	137, 000
1956	1, 870, 157	27, 400		27, 400	27, 400		27, 400	164, 400
1957	1, 870, 157	27, 400	³ \$8, 376	19, 024	27, 400	³ \$8, 376	19, 024	183, 424
Total		191, 800	—8, 376	183, 424	191, 800	—8, 376	183, 424	
Collected				183, 424				
Uncollected				0				

¹ Chargeoff, \$9,843, act of May 6, 1949.² District contract amended to provide for rehabilitation and betterment.³ Maturities transferred, Public Law 258, \$9,109.66; construction charge highway right-of-way, collected, —\$733.50; total, \$8,376.16.*Operation and maintenance assessments history—
Deaver irrigation district*

Fiscal year	Accruals	Collections
1919	\$10, 280	\$4, 892
1920	14, 660	10, 873
1921	33, 636	13, 223
1922	37, 985	9, 519
1923	25, 307	8, 746
1924	21, 677	3, 381
1925	¹ 21, 688	¹ 217
1926	¹ 17, 641	123
1927	¹ 83	7, 716
1928	9, 970	13, 562
1929	12, 213	15, 572
1930	¹ 38, 195	731
1931	1, 392	1, 011
1932	1, 033	383
1933	1, 045	1, 030
1934	994	1, 058
1935	972	915
1936	1, 145	1, 037
1937	1, 251	1, 184
1938	1, 546	1, 213
1939	1, 323	1, 548
1940	1, 608	1, 323

*Operation and maintenance assessments history—
Deaver irrigation district—Continued*

Fiscal year	Accruals	Collections
1941	\$1, 481	\$1, 608
1942	1, 393	1, 480
1943	1, 544	2, 304
1944	1, 320	1, 951
1945	1, 156	1, 158
1946	1, 022	1, 022
1947	1, 265	1, 265
1948	912	912
1949	964	964
1950	1, 162	1, 162
1951	1, 250	1, 250
1952	1, 479	1, 479
1953	909	909
1954	1, 389	1, 389
1955	1, 677	1, 677
1956	1, 063	1, 063
1957	1, 110	1, 110
Total	121, 526	121, 526

¹ Decrease.

*Operation and maintenance assessments history—
Shoshone irrigation district*

Fiscal year	Accruals	Collections
1908	\$1, 548	\$741
1909	8, 450	8, 859
1910	8, 588	5, 156
1911	19, 754	18, 615
1912	18, 938	21, 428
1913	10, 856	2, 548
1914	21, 929	32, 877
1915	25, 203	14, 629
1916	17, 848	23, 404
1917	24, 251	23, 258
1918	28, 802	27, 653
1919	47, 487	43, 664
1920	55, 746	55, 212
1921	66, 708	37, 369
1922	83, 153	36, 583
1923	46, 984	20, 460
1924	40, 508	16, 898
1925	20, 323	19, 026
1926	39, 899	33, 154
1927	¹ 136, 143	1, 769
1928	528	2, 972
1929	¹ 12	4, 655
1930	1, 318	1, 622
1931	1, 813	1, 813
1932	1, 213	1, 322
1933	1, 520	1, 525
1934	1, 849	1, 849
1935	1, 456	1, 456
1936	1, 067	1, 067
1937	592	592
1938	1, 577	1, 577
1939	1, 474	1, 474
1940	2, 284	1, 941
1941	1, 851	2, 194
1942	2, 147	2, 147
1943	2, 715	2, 715
1944	1, 658	1, 658
1945	1, 704	1, 704
1946	1, 479	1, 479
1947	1, 998	1, 998
1948	1, 091	1, 091
1949	1, 363	1, 363
1950	1, 617	1, 617
1951	1, 783	1, 783
1952	2, 287	2, 287
1953	1, 180	1, 180
1954	2, 207	2, 207
1955	2, 699	2, 699
1956	1, 411	1, 411
1957	1, 560	1, 560
Total	498, 261	498, 261

*Operation and maintenance assessments history—
Willwood irrigation district*

Fiscal year	Accruals	Collections
1928	\$2, 415	\$2, 415
1929	3, 841	3, 841
1930	4, 655	4, 655
1931	5, 581	5, 581
1932	5, 805	5, 805
1933	5, 983	5, 983
1934	5, 546	5, 546
1935	9, 392	9, 392
1936	10, 110	10, 110
1937	13, 177	13, 177
1938	13, 455	13, 455
1939	14, 200	14, 200
1940	14, 257	14, 257
1941	14, 011	14, 011
1942	15, 204	15, 204
1943	15, 184	15, 072
1944	19, 649	19, 658
1945	19, 677	19, 570
1946	19, 651	19, 651
1947	22, 463	22, 463
1948	22, 493	22, 493
1949	600	600
1950	680	680
1951	1, 099	1, 099
1952	1, 299	1, 299
1953	636	636
1954	900	900
1955	1, 207	1, 207
1956	773	773
1957	838	838
Total	264, 781	264, 571

¹ Decrease.

Payout study—Shoshone, Deaver, and Willwood irrigation districts

Fiscal year	Shoshone irrigation district			Deaver irrigation district			Willwood irrigation district		
	Construction obligation	Net revenues	Unmatured balance	Construction obligation	Net revenues	Unmatured balance	Construction obligation	Net revenues	Unmatured balance
Through 1957-----	\$3, 188, 635	\$2, 361, 769	\$826, 866	\$2, 148, 817	\$183, 816	\$1, 965, 001	\$1, 870, 157	\$183, 424	\$1, 686, 733
1958-----	3, 188, 635	65, 566	761, 300	2, 148, 817	7, 801	1, 957, 200	1, 870, 157	27, 400	1, 659, 333
1959-----	3, 188, 635	60, 000	701, 300	2, 148, 817	7, 800	1, 949, 400	1, 870, 157	27, 400	1, 631, 933
1960-----	3, 188, 635	53, 000	648, 300	2, 148, 817	7, 800	1, 941, 600	1, 870, 157	27, 400	1, 604, 533
1961-----	3, 188, 635	53, 000	595, 300	2, 148, 817	7, 800	1, 933, 800	1, 870, 157	27, 400	1, 577, 133
1962-----	3, 188, 635	51, 000	544, 300	2, 148, 817	7, 800	1, 926, 000	1, 870, 157	27, 400	1, 549, 733
1963-----	3, 188, 635	51, 000	493, 300	2, 148, 817	7, 800	1, 918, 200	1, 870, 157	27, 400	1, 522, 333
1964-----	3, 188, 635	51, 000	442, 300	2, 148, 817	7, 800	1, 910, 400	1, 870, 157	27, 400	1, 494, 933
1965-----	3, 188, 635	51, 000	391, 300	2, 148, 817	7, 800	1, 902, 600	1, 870, 157	27, 400	1, 467, 533
1966-----	3, 188, 635	51, 000	340, 300	2, 148, 817	7, 800	1, 894, 800	1, 870, 157	27, 400	1, 440, 133
1967-----	3, 188, 635	51, 000	289, 300	2, 148, 817	7, 800	1, 887, 000	1, 870, 157	27, 400	1, 412, 733
1968-----	3, 188, 635	51, 000	238, 300	2, 148, 817	7, 800	1, 879, 200	1, 870, 157	27, 400	1, 385, 333
1969-----	3, 188, 635	30, 000	208, 300	2, 148, 817	7, 800	1, 871, 400	1, 870, 157	27, 400	1, 357, 933
1970-----	3, 188, 635	30, 000	178, 300	2, 148, 817	7, 800	1, 863, 600	1, 870, 157	27, 400	1, 330, 533
1971-----	3, 188, 635	30, 000	148, 300	2, 148, 817	7, 800	1, 855, 800	1, 870, 157	27, 400	1, 303, 133
1972-----	3, 188, 635	30, 000	118, 300	2, 148, 817	7, 800	1, 848, 000	1, 870, 157	27, 400	1, 275, 733
1973-----	3, 188, 635	30, 000	88, 300	2, 148, 817	7, 800	1, 840, 200	1, 870, 157	27, 400	1, 248, 333
1974-----	3, 188, 635	30, 000	58, 300	2, 148, 817	7, 800	1, 832, 400	1, 870, 157	27, 400	1, 220, 933
1975-----	3, 188, 635	8, 000	50, 300	2, 148, 817	7, 800	1, 824, 600	1, 870, 157	27, 400	1, 193, 533
1976-----	3, 188, 635	8, 000	42, 300	2, 148, 817	7, 800	1, 816, 800	1, 870, 157	27, 400	1, 166, 133
1977-----	3, 188, 635	8, 000	34, 300	2, 148, 817	7, 800	1, 809, 000	1, 870, 157	27, 400	1, 138, 733
1978-----	3, 188, 635	8, 000	26, 300	2, 148, 817	7, 800	1, 801, 200	1, 870, 157	27, 400	1, 111, 333
1979-----	3, 188, 635	8, 000	18, 300	2, 148, 817	7, 800	1, 793, 400	1, 870, 157	27, 400	1, 083, 933
1980-----	3, 188, 635	8, 000	10, 300	2, 148, 817	7, 800	1, 785, 600	1, 870, 157	27, 400	1, 056, 533
1981-----	3, 188, 635	8, 000	2, 300	2, 148, 817	7, 800	1, 777, 800	1, 870, 157	27, 400	1, 029, 133
1982-----	3, 188, 635	2, 300	0	2, 148, 817	7, 800	1, 770, 000	1, 870, 157	27, 400	1, 001, 733
1983-----				2, 148, 817	7, 678	1, 762, 322	1, 870, 157	27, 400	974, 333
1984-----				2, 148, 817	7, 625	1, 754, 697	1, 870, 157	27, 400	946, 933
1985-----				2, 148, 817	7, 625	1, 747, 072	1, 870, 157	27, 400	919, 533
1986-----				2, 148, 817	7, 625	1, 739, 447	1, 870, 157	27, 400	892, 133
1987-----				2, 148, 817	7, 625	1, 731, 822	1, 870, 157	27, 400	864, 733
1988-----				2, 148, 817	7, 625	1, 724, 197	1, 870, 157	27, 400	837, 333
1989-----				2, 148, 817	7, 625	1, 716, 572	1, 870, 157	27, 400	809, 933
1990-----				2, 148, 817	7, 625	1, 708, 947	1, 870, 157	27, 400	782, 533
1991-----				2, 148, 817	7, 625	1, 701, 322	1, 870, 157	27, 400	755, 133
1992-----				2, 148, 817	7, 625	1, 693, 697	1, 870, 157	27, 400	727, 733
1993-----				2, 148, 817	7, 625	1, 686, 072	1, 870, 157	27, 400	700, 333
1994-----				2, 148, 817	7, 500	1, 678, 572	1, 870, 157	27, 400	672, 933
1995-2018-----				2, 148, 817	180, 000	1, 498, 572	1, 870, 157	657, 600	15, 333
2019-----				2, 148, 817	7, 500	1, 491, 072	1, 870, 157	15, 333	0
2020-2144-----				2, 148, 817	937, 500	553, 572			
2145-----				2, 148, 817	2, 559	551, 013			
Class 5 land-----						551, 013			

SOLANO PROJECT

SOLANO COUNTY, CALIF.

The Solano project, which embraces substantially all of the irrigable land in Solano County, Calif., was authorized by the Secretary of the Interior on November 11, 1948 (53 Stat. 1187), pursuant to the Reclamation Project Act of 1939. The Secretary submitted his findings of feasibility to the Congress of the United States. The plan of the project was set out in House Document No. 65, 81st Congress, 1st session. A water service contract was signed with the Solano County flood control and water conservation district on March 3, 1955. The member-unit contracts were executed on June 28, 1955.

The purpose of the project is to furnish supplemental irrigation water to the lands of the Solano irrigation district and domestic water supplies to the cities of Fairfield, Suisun, Vacaville, and Vallejo.

Monticello Dam and Reservoir, with a capacity of 1,600,000 acre-feet, will store surplus water of Putah Creek with a provision for releases downstream for the normal recharge of ground water along the stream. Water will be diverted at the Putah diversion dam into the 38-mile Putah South Canal to a terminal reservoir. Also included in the plan are 2 major wasteways.

In addition, as a part of the authorized project facilities, are lateral distribution and drainage works needed for the Solano irrigation district. The official estimated project cost is \$52,410,000, including the cost of the distribution and drainage system which aggregates \$15,164,000. At the present time the Solano irrigation district is negotiating with the United States to construct a distribution system with funds advanced by the

United States under the act of July 4, 1955 (69 Stat. 244). A repayment contract for the estimated cost will be negotiated prior to construction.

Project repayment will be accomplished under the water service contract with the Solano County flood control and water conservation district, with the district operating the Putah South Canal and delivering water to the cities and to the Solano irrigation district. The United States will operate the diversion dam and Monticello Dam. A water rate of \$15 per acre-foot for all water delivered to municipalities or to areas of less than 2 acres has been established. Varying water rates have been established for the irrigation water. These rates are \$1.55 per acre-foot during the first 2 years, \$2.05 during the next 3 years, and \$2.65 for the remainder of the payout period. Using these water rates and the estimated water deliveries that are shown in the contract, it is estimated that the project will be repaid in approximately 50 years and that interest at 2.5 percent on the unpaid balance allocated to municipal and industrial will be returned to the Treasury.

Under the act of July 4, 1955 (69 Stat. 244), as amended, the Bureau of Reclamation is authorized to make interest-free loans for the construction of irrigation distribution systems, and under the act of August 6, 1956 (70 Stat. 1044), as amended, to make loans for the construction of small irrigation projects, both under certain criteria established by the authorizing legislation.

Under the distribution system program (69 Stat. 244), a contract for \$12,302,000 has been signed with the Solano irrigation district of Cali-

foria. This is the first contract executed. During fiscal year 1958, negotiations with qualified irrigation districts will continue.

The allocation of costs:

Reimbursable:

Main project features:

Irrigation.....	\$32, 902, 300
Municipal and industrial.....	3, 098, 700
Power ¹	113, 000
<hr/>	
Total.....	36, 114, 000
Distribution and drainage system..	15, 164, 000
<hr/>	
Total.....	51, 278, 000

Nonreimbursable:

Flood control.....	\$1, 132, 000
<hr/>	
Total.....	52, 410, 000
<hr/>	
Repayment of reimbursable costs:	
By irrigation water users.....	22, 018, 000
By municipal water users.....	13, 983, 000
By power revenue ¹	113, 000
<hr/>	
	36, 114, 000
Distribution and drainage system.....	15, 164, 000
<hr/>	
Total.....	51, 278, 000

¹ Allocated to power and reimbursable from power revenues if Monticello powerplant is built. Otherwise to be reimbursed from other project revenues.

STRAWBERRY VALLEY PROJECT

PAYSON, UTAH

The construction of the Strawberry Valley project in Wasatch and Utah Counties, Utah, was authorized by the Secretary of the Interior on December 15, 1905, under the provisions of the Reclamation Act of June 17, 1902 (32 Stat. 388).

The project was developed to furnish water to 42,000 acres of land. Original project features include Strawberry Dam and Reservoir, Indian Creek Dike and Feeder Canal, Strawberry Tunnel, diversion works, powerplant and canal, on Spanish Fork River, Highline Canal, and Mapleton Lateral. The project consists of the Highline division, Spanish Fork division, and the Springville-Mapleton division, with the Strawberry Water Users Association designated as the fiscal agent between the water users and the United States.

The total cost of constructing the project features was \$3,485,419. The entire amount, together with operation and maintenance, and interest and penalties funded, less certain construction revenues and contributions, is repayable under the terms of the repayment contracts with the Strawberry Valley Water Users Association.

The allocation and repayment of costs:

Total project cost.....	\$3, 485, 419
Allocation of reimbursable costs:	
Irrigation.....	3, 485, 419
Repayment of reimbursable costs from irrigation water users:	
For irrigation plant investment.....	3, 485, 419
Operation and maintenance funded.....	60, 671
Interest and penalties funded.....	47, 398
Transitional development costs.....	9, 216
Subtotal.....	3, 602, 704
Less:	
Revenues.....	250, 006
Contributions.....	4, 179
Subtotal.....	254, 185
Total repayment obligation.....	3, 348, 519

282

The Highline Canal is operated and maintained by the Strawberry Highline Canal Co. The Mapleton Lateral is operated and maintained jointly by the Mapleton and Springville irrigation districts. The other project features are operated and maintained by the Strawberry Water Users Association.

Repayment contracts.—The original Strawberry Water Users Association repayment contract was signed March 5, 1906. The amendatory contract signed October 9, 1940, provides for repayment of the remaining obligation of \$1,715,458 in 20 to 40 annual installments.

PUBLIC NOTICES AND CONTRACTS

- 1906, March 5: Contract with Strawberry Water Users Association for project construction and repayment of construction costs.
- 1915, October 8 and October 9: Public notice for Lake Shore and Spanish Fork units. Construction charge \$90 for 2 acre-feet, payable in 20 graduated annual installments.
- 1916, May 13: Public notice for Highline unit. Construction charges \$80 per acre, payable in 20 graduated annual installments.
- 1920, April 26: Public notice increasing construction charge for Lake Shore and Spanish Fork units for lands not applied for to \$108 for 2 acre-feet and for the Highline unit to \$100 per acre.
- 1926, September 28: Contract Ilr-78 with Strawberry Water Users Association. Association assumes obligation under individual water-right applications. Delinquent operation and maintenance charges and penalties funded with construction.
- 1940, October 9: Contract with Strawberry Water Users Association extending repayment period to 40 years.

The status of repayment:

Total value contracted repayment.....	¹ \$3, 349, 424
Total matured charges.....	2, 673, 893
Total charges repaid.....	2, 673, 893
Total matured charges unpaid.....	0

¹ To be adjusted to actual obligation of \$3,348,519.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1916	\$1,731,249	\$20,421		\$20,421	\$19,829		\$19,829	\$19,829
1917	1,788,312	29,024		29,024	27,552		27,552	47,381
1918	2,341,245	38,703		38,703	34,999		34,999	82,380
1919	2,596,600	39,102		39,102	38,286		38,286	120,666
1920	3,044,066	47,339		47,339	45,631	\$3,007	48,638	169,304
1921	3,075,829	88,136		88,136	77,187	3,714	80,901	250,205
1922	3,082,999	93,100		93,100	59,512	3,972	63,484	313,689
1923	3,084,099	123,079	¹ \$2,559	120,520	64,732	17,976	82,708	396,397
1924	3,091,256	136,150	¹ 3,596	132,554	63,426	19,974	83,400	479,797
1925	3,103,417	155,390	1,030	156,420	66,551	10,290	76,841	556,638
1926	3,114,337	177,700	¹ 9,875	167,825	78,551	27,300	105,851	662,489
1927	3,181,503	86,101	¹ 249,224	¹ 163,123	82,473		82,473	744,962
1928	3,162,530	110,156		110,156	96,032	32,972	129,004	873,966
1929	3,208,236	112,427		112,427	101,974	16,664	118,638	992,604
1930	3,212,136	110,038		110,038	99,664		99,664	1,092,268
1931	3,342,029	107,804		107,804	94,805	10,374	105,179	1,197,447
1932	3,342,029	² 105,681		105,681	43,335	12,999	56,334	1,253,781
1933	3,342,542	² 73,799	¹ 80,144	¹ 6,345	67,992	¹ 17,797	50,195	1,303,976
1934	3,348,835	² 23,312	¹ 49,843	¹ 26,531	23,312	¹ 44,037	¹ 20,725	1,283,251
1935	3,348,835	² 90,495		90,495	64,799		64,799	1,348,050
1936	3,349,379	² 23,625	¹ 80,236	¹ 56,611	23,625	¹ 54,540	¹ 30,915	1,317,135
1937	3,349,424	² 68,803		68,803	68,803		68,803	1,385,938
1938	3,349,424	86,457		86,457	86,457		86,457	1,472,395
1939	3,349,424	82,161		82,161	82,161		82,161	1,554,556
1940	3,349,424	79,410		79,410	79,410		79,410	1,633,966
1941	3,349,424	50,843		50,843	50,843		50,843	1,684,809
1942	3,349,424	47,805		47,805	47,805		47,805	1,732,614
1943	3,349,424	46,336		46,336	46,336		46,336	1,778,950
1944	3,349,424	46,626		46,626	46,626		46,626	1,825,576
1945	3,349,424	46,364		46,364	46,364		46,364	1,871,940
1946	3,349,424	50,199		50,199	50,199		50,199	1,922,139
1947	3,349,424	53,903		53,903	53,903		53,903	1,976,042
1948	3,349,424	59,978		59,978	59,978		59,978	2,036,020
1949	3,349,424	61,375		61,375	61,375		61,375	2,097,395
1950	3,349,424	63,837		63,837	63,837		63,837	2,161,232
1951	3,349,424	67,524		67,524	67,524		67,524	2,228,756
1952	3,349,424	71,065		71,065	71,065		71,065	2,299,821
1953	3,349,424	73,381		73,381	73,381		73,381	2,373,202
1954	3,349,424	75,302		75,302	75,302		75,302	2,448,504
1955	3,349,424	75,901		75,901	75,901		75,901	2,524,405
1956	3,349,424	75,269		75,269	75,269		75,269	2,599,674
1957	3,349,424	74,219		74,219	74,219		74,219	2,673,893
Total Collected		3,148,340	—474,447	2,673,893	2,631,025	42,868	2,673,893	
Uncollected				0				

¹ Decrease. Decreases are due to cancellation of water-right applications, funding of delinquent charges, and deferments under relief acts. 1927, adjustment under 1926 contract.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$93,031; 1932, \$74,449; 1933, \$70,320; 1934, \$69,178; 1935, \$55,309; 1936, \$9,412.

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1916	\$5,442	\$5,352
1917	15,810	14,500
1918	17,834	18,205
1919	25,306	24,291
1920	33,249	32,292
1921	55,660	51,452
1922	70,062	52,388
1923	53,774	50,860
1924	42,087	32,798
1925	41,031	25,271
1926	41,765	34,616

Operation and maintenance assessments history—Continued

Fiscal year	Accruals	Collections
1927	¹ \$24,261	\$30,917
1928	¹ 1,086	3,679
1929	54	106
1930	94	94
1931	60	60
Total	376,881	376,881

¹ Decrease.

SUN RIVER PROJECT

FAIRFIELD, MONT.

Construction of the Sun River project was authorized by the Secretary of the Interior on February 26, 1906 in accordance with act of June 17, 1902 (32 Stat. 388).

The project plan provides for utilizing the waters of Sun River and tributaries, conserved and regulated by storage in Gibson, Pishkun, and Willow Creek Reservoirs for the irrigation of approximately 100,000 acres of land. Principal features are the Gibson Dam and Reservoir, about 70 miles west of Great Falls on the North Fork of the Sun River; Willow Creek Dam and Reservoir, about 15 miles southeast of Gibson Dam, on Willow Creek near its confluence with Sun River; Pishkun Reservoir, about 15 miles northeast of Gibson Dam, an offstream reservoir occupying a natural depression with eight dikes to secure the required capacity; Sun River Diversion Dam which diverts water into Pishkun Canal; Sun River Slope Canal which serves all project land on the north side of the Sun River; and the Fort Shaw Canal which serves the Fort Shaw division on the south side of the Sun River. The project consists of the Greenfields Division and the Fort Shaw division.

All costs are allocated to irrigation for repayment.

FORT SHAW DIVISION

The cost of the irrigation features for the Fort Shaw division, as of June 30, 1957, was \$589,110, including the expenditure of \$38,151 for rehabilitation and betterment. Additional costs in the amount of \$12,048 for interest and penalties and \$46,241 for other charges have been funded with these costs, resulting in a gross cost of \$647,399 for the Fort Shaw irrigation district. Chargeoffs made under the act of May 25, 1926, include \$180,001 for 5,238.67 acres of eroded, nonproductive, and flooded lands, plus \$11,909 for adjust-

ment of losses on other lands. This leaves a net cost to the Fort Shaw division of \$455,489. A portion of these costs was not included in the district obligation on June 30, 1957, since it was assignable to a small acreage of irrigable State-owned lands. In addition to the above costs, an operation and maintenance deficit prior to the Reclamation Act of 1914 amounting to \$34,148 also has been written off, pursuant to the act of May 25, 1926.

Operation and maintenance of the division was assumed by the Fort Shaw irrigation district on January 1, 1927.

Repayment contracts.—The original Fort Shaw irrigation district contract was signed on November 10, 1926. The contract provided that the district assume obligations amounting to \$475,840 and that repayment was to be on a crop-production basis, with the annual installment to be 5 percent of average gross acre income for 10 years preceding until the obligation is paid in full. The Commissioner, on January 15, 1954, approved a writeoff of lands under contract in the amount of \$71,068.35. During the fiscal year 1956 an additional writeoff was approved in the amount of \$3,387 on account of class 5 lands that were reclassified as class 6. In fiscal year 1957, 207.10 acres of irrigable public lands were sold with an increase in the district's repayment obligation in the amount of \$7,115. On June 30, 1957, the total construction repayment obligation of the water users was \$408,500, all of which had been repaid except for \$65,707 not yet due. About 60 percent of the acreage is entirely paid up on original construction costs.

Rehabilitation and betterment contracts.—On April 29, 1949, the Fort Shaw irrigation district signed a contract to repay not to exceed \$20,000 for needed rehabilitation and betterment work, including the construction of an adequate drainage

Construction repayment history—Fort Shaw irrigation district

Fiscal year	Total obligation of water users to repay*	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1908		\$1,398		\$1,398	\$1,104		\$1,104	\$1,104
1909		15,668		15,668	14,760		14,760	15,864
1910		11,996		11,996	10,522		10,522	26,386
1911		55,425		55,425	9,794		9,794	36,180
1912		23,001		23,001	1,845	\$24,976	26,821	63,001
1913		37,045	¹ \$3,831	33,214	7,876	13,123	20,999	84,000
1914		28,543	¹ 10,295	18,248	9,999	4,255	5,254	89,254
1915	\$339,666	7,795	¹ 71,646	¹ 63,851	7,079	¹ 3,181	3,898	93,152
1916	357,244	5,724	¹ 417	5,307	4,500	¹ 59	4,441	97,593
1917	380,643			5,378			5,063	102,656
1918	400,428			6,963			6,629	109,285
1919	395,799	36,641		2,582	32,328		2,666	111,951
1920	415,582			10,348			11,003	122,954
1921	424,986			11,370			6,967	129,921
1922	427,698			11,746			5,942	135,863
1923	423,127	11,823	¹ 77	11,746	4,608	1,334	5,942	135,863
1924	409,951	12,065	¹ 501	11,564	3,798	1,336	5,134	140,997
1925	422,423	12,732	¹ 6,511	6,221	5,505	2,084	7,589	148,586
1926	416,964	15,680	¹ 1,928	13,752	5,985	1,949	7,934	156,520
1927	457,263	15,144	¹ 129	15,015	4,894	4,646	9,540	166,060
1928	462,982	13,701	¹ 33,691	¹ 19,990	10,153	¹ 4,266	5,887	171,947
1929	478,030	5,570	¹ 2,945	2,625	5,199	265	5,464	177,411
1930	478,030	7,419	¹ 56	7,363	6,866	514	7,380	184,791
1931	477,702	8,913		8,913	8,365	54	8,419	193,210
1932	476,051	7,900		7,900	7,271	879	8,150	201,360
1933	478,219	² 1,906		1,906	1,047	550	1,597	202,957
1934	475,087	² 1,265	2,441	3,706	1,001	3,397	4,398	207,355
1935	475,839	² 1,327		1,327	1,327	413	1,740	209,095
1936	475,436	² 9,815		9,815	9,719		9,719	218,814
1937	475,437	² 1,510		1,510	841	96	937	219,751
1938	475,437	² 4,475		4,475	1,078	17	1,095	220,846
1939	475,125	6,329		6,329	2,844	4,221	7,065	227,911
1940	472,744	6,293		6,293	2,940	3,313	6,253	234,164
1941	475,840	6,223	¹ 1,151	5,072	2,957	2,182	5,139	239,303
1942	475,840	4,001		4,001	3,990	3,209	7,199	246,502
1943	475,840	5,598		5,598	5,580	56	5,636	252,138
1944	475,840	5,239		5,239	5,221	50	5,271	257,409
1945	475,840	5,535		5,535	5,535	18	5,553	262,962
1946	475,840	5,807		5,807	5,807		5,807	268,769
1947	475,840	5,990		5,990	5,990		5,990	274,759
1948	475,840	6,214		6,214	6,214		6,214	280,973
1949	475,840	6,178		6,178	6,178		6,178	287,151
1950	475,840	6,245		6,245	6,245		6,245	293,396
1951	475,840	6,834		6,834	6,834		6,834	300,230
1952	475,840	6,173		6,173	6,173		6,173	306,403
1953	475,840	6,549		6,549	6,549		6,549	312,952
1954	475,840	6,556		6,556	6,556		6,556	319,508
1955	³ 404,772	4,990		4,990	4,990		4,990	324,498
1956	404,772	6,269		6,269	6,269		6,269	330,767
1957	⁴ 401,385	6,044		6,044	6,044		6,044	336,811
	⁵ 408,500	5,983		5,983	5,983		5,983	342,794
Total.....		473,531	¹ 130,737	342,794	277,363	65,431	342,794	
Collected.....				342,794				
Uncollected.....				0				

*Excludes obligation for rehabilitation and betterment.

¹ Decreases cover cancellation of water-right applications and funding of delinquent charges. 1915—Reclamation Extension Act, Aug. 13, 1914; 1927—adjustment under 1926 contract.² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$2,621; 1932, \$5,728; 1933, \$5,778; 1934, \$6,042; 1935, \$6,020; 1936, \$2,556.³ Writetoff of \$97,679.64 approved by Commissioner on Jan. 15, 1954, of which \$71,068.35 applies to lands under contract and \$26,611.29 applies to lands not under contract. The difference of \$71,068 between 1953 and 1954 obligations is hereby accounted for.⁴ \$2,823 to record writetoff of unmatured balance class 5 lands in group 1A placed in class 6. \$564 to record writetoff of unmatured balance class 5 lands in group 2A (nonconsenters) placed in class 6.⁵ 207.10 acres irrigable public land sold with repayment obligation of \$7,115.

system for about 1,200 acres. On July 11, 1951, the 1949 contract was amended to increase the maximum obligation to \$40,000 and the amended repayment plan provided for semiannual installments of \$600 beginning January 15, 1956. The rehabilitation and betterment work was completed at a cost of \$38,151.04 and the contracted obligation has been adjusted to that amount with no change in the repayment installments.

The summary of status of the Fort Shaw division repayment contracts:

Total value of contracted repayment, construction and rehabilitation and betterment.....	\$446, 652
Total matured charges.....	344, 594
Total matured charges repaid.....	344, 594
Total matured charges unpaid.....	0

PUBLIC NOTICES AND CONTRACTS

- 1908, March 26: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.
- 1912, March 2: Public notice. Construction charge increased to \$36, payable in 10 graduated annual installments.
- 1919, April 29: Public notice. Opening public lands to entry with construction charge at \$50 per acre.
- 1920, March 24: Public notice. Opening public lands to entry with construction charge at \$60 per acre.
- 1926, November 10: Contract I79R-96 with Fort Shaw irrigation district. District assumes obligations under individual water-right applications. Delinquent charges and penalties funded. Repayment to be on a crop-production basis, with the annual installment to be 5 percent of average gross acre income for 10 years preceeding.
- 1949, April 29: Supplemental contract obligating the Fort Shaw irrigation district not to exceed \$20,000 for needed rehabilitation and betterment work including the construction of an adequate drainage system for an area of about 1,200 acres located near the town of Fort Shaw. Repayment scheduled to begin January 1, 1960, in semiannual installments of \$500 and continuing until said charges are fully paid.
- 1951, July 11: Amendment to contract I79r-1295 of April 29, 1949, to increase the maximum obligation to \$40,000 and to increase the rate of repayment to semiannual installments of \$600 beginning January 15, 1956. On December 28, 1955, the irrigation district was advised that the rehabilitation and betterment work had been completed at a total cost of \$38,151.04.

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1908-----	\$233	\$184
1909-----	2, 900	2, 460
1910-----	1, 711	1, 754
1911-----	8, 155	3, 977
1912-----	10, 326	4, 300
1913-----	10, 685	7, 990
1914-----	6, 784	12, 905
1915-----	¹ 5, 529	1, 281
1916-----	8, 455	6, 767
1917-----	9, 359	7, 601
1918-----	11, 249	10, 916
1919-----	17, 064	15, 374
1920-----	20, 960	20, 139
1921-----	20, 425	13, 154
1922-----	26, 706	8, 561
1923-----	13, 432	8, 126
1924-----	¹ 4, 068	9, 634
1925-----	11, 567	8, 157
1926-----	11, 028	9, 080
1927-----	¹ 21, 230	3, 723
1928-----	¹ 2, 889	1, 165
1929-----	831	906
1930-----	817	635
1931-----	220	220
1932-----	150	182
1933-----	¹ 41	¹ 73
1934-----	¹ 182	0
1935-----		
1936-----		
1937-----		
1938-----		
1939-----		
1940-----	¹ 31	¹ 31
Total-----	159, 087	159, 087

¹ Decrease.

GREENFIELDS DIVISION

The total construction cost of the irrigation features for the Greenfields division, through June 30, 1957, was \$9,488,193. In addition operation and maintenance costs in the amount of \$189,039 have been funded, bringing the total cost to \$9,677,232 as of June 30, 1957. The amount of \$297,752, relating to a portion of the cost of the Greenfields main canal, has been charged off under the authority of Public Law 165, 83d Congress, and \$24,141 of construction revenues accrued, resulting in a net reimbursable cost of \$9,355,339 as of June 30, 1957. \$166,238 of the maximum repayment obligation remains to complete construction.

Operation and maintenance of the division was assumed by the Greenfields irrigation district on January 1, 1931.

Repayment contracts.—The Greenfields irrigation district contracted on June 22, 1926, to repay the construction cost of the irrigation system for the Greenfields division. The total obligation, including funded operation and maintenance amounted to \$9,521,577. Repayment is on a crop-production basis with annual installments at 5 percent of average gross acre income for the 10 preceding years. Repayments commenced in 1937 in accordance with the contract. The State Highway Commission, the Chicago, Milwaukee, & St. Paul Railroad, and others have repaid \$37,272.45 of the district's repayment obligation on account of irrigable land in rights-of-way.

PUBLIC NOTICES AND CONTRACTS

- 1924, January 9: Order. Opening land to entry by contestants with preference rights. Water charges to be announced later.
- 1926, June 22: Contract Ilr-537 with Greenfields irrigation district to repay construction cost of irrigation system for the Greenfields division. Repayment on crop-production basis, annual installments to be 5 percent of average gross acre income for 10 preceding years.
- 1931, May 9: Order. Opening land to entry by contestants with preference rights. Water charges to be paid in accordance with contract dated June 22, 1926.

- 1932, May 27: Order. Opening public lands to entry. Water charges to be paid in accordance with contract dated June 22, 1926.
- 1936, January 10: Order. Opening public lands to entry. Water charges to be paid in accordance with contract dated June 22, 1926.
- 1939, September 21: Public notice. Opening public lands to entry and announcing availability of water for public and private lands. Water charges to be paid in accordance with contract dated June 22, 1926.
- 1940, March 22: Public notice. Opening public lands to entry and announcing availability of water for public and private lands. Water charges to be paid in accordance with contract dated June 22, 1926.
- 1947, February 21: Public notice. Announcing availability of water for public lands and opening of public lands to entry. Water charges to be paid in accordance with contract dated June 22, 1926.

The summary of status of the Greenfields division repayment contracts:

Total value of contracted repayment.....	\$9, 521, 577
Total matured charges.....	1, 417, 930
Total matured charges paid.....	1, 417, 930
Total matured charges unpaid.....	0

Annual operation and maintenance assessments.—The Greenfields division has been turned over to the water users to operate and maintain since December 31, 1926. Advances to the Bureau of Reclamation are made annually for payment of three-fourths of the superintendent's salary from the district's regular operation and maintenance assessments.

Construction repayment history—Greenfields irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1927	\$9, 521, 577							
1928	9, 534, 807							
1929	9, 534, 807							
1930	9, 534, 807							
1931	9, 534, 807							
1932	9, 567, 184							
1933	9, 567, 184							
1934	9, 567, 184							
1935	9, 566, 996							
1936	9, 566, 996							
1937	9, 594, 333	\$54, 706		\$54, 706	\$50, 375		\$50, 375	\$50, 375
1938	9, 593, 034	26, 100		26, 100	26, 100	\$4, 331	30, 431	80, 806
1939	9, 593, 034	27, 229		27, 229	22, 627		22, 627	103, 433
1940	9, 593, 034	27, 293		27, 293	16, 486	4, 602	21, 088	124, 521
1941	9, 593, 034	13, 508		13, 508	13, 508	10, 807	24, 315	148, 836
1942	9, 597, 449	32, 777		32, 777	32, 777		32, 777	181, 613
1943	9, 597, 449	31, 133		31, 133	31, 133		31, 133	212, 746
1944	9, 597, 449	35, 583		35, 583	35, 583		35, 583	248, 329
1945	9, 597, 449	42, 079		42, 079	42, 079		42, 079	290, 408
1946	9, 597, 449	50, 984		50, 984	50, 984		50, 984	341, 392
1947	9, 597, 449	61, 534		61, 534	61, 534		61, 534	402, 926
1948	9, 597, 449	70, 871		70, 871	70, 871		70, 871	473, 797
1949	9, 597, 449	80, 452		80, 452	80, 452		80, 452	554, 249
1950	9, 597, 449	93, 388		93, 388	93, 388		93, 388	647, 637
1951	9, 597, 449	92, 791		92, 791	92, 791		92, 791	740, 428
1952	9, 597, 449	102, 971		102, 971	101, 623		101, 623	842, 051
1953	¹ 9, 555, 084	107, 846		107, 846	107, 846	1, 348	109, 194	951, 245
1954	9, 555, 084	111, 862		111, 862	111, 862		111, 862	1, 063, 107
1955	9, 555, 084	118, 163		118, 163	118, 163		118, 163	1, 181, 270
1956	9, 555, 084	118, 193		118, 193	118, 193		118, 193	1, 299, 463
1957	9, 521, 577	118, 467		118, 467	118, 467		118, 467	1, 417, 930
Total		1, 417, 930		1, 417, 930	1, 396, 842	21, 088	1, 417, 930	
Collected				1, 417, 930				
Uncollected				0				

¹ Obligation adjusted in books of account to conform to current contract provisions.

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1927		
1928		
1929		
1930		
1931		
1932	\$4, 800	\$4, 800
1933	2, 400	2, 400
1934	0	0
1935	2, 400	2, 400
Total	¹ 9, 600	9, 600

¹ District operates and maintains irrigation system. Above charges for supervisory service.

TRUCKEE STORAGE PROJECT

RENO, NEV.

The construction of the Truckee storage project was initiated under the provisions of the NIRA of June 16, 1933, and approved by the President on September 21, 1935, under the terms of subsection B of section 4 of the act of December 5, 1924 (43 Stat. 701).

The project was developed to furnish water to approximately 29,000 acres of land in Washoe County, Nev. The project features include Boca Dam and Reservoir with a capacity of 41,142 acre-feet. Besides furnishing irrigation water to project lands, Boca Dam is operated under the Truckee River agreement of June 13, 1935, and provides water for power generation by the Sierra Pacific Power Co. and for the Newlands project, Nevada.

The total cost of constructing the Truckee storage facilities was \$1,092,423. Of this amount, \$1,000,000 is repayable by the irrigators (sec. 3, act of May 29, 1941, ch. 153, 55 Stat. 210). Operation and maintenance of the project was transferred to the Washoe County water conservation district on January 15, 1942.

CONTRACTS

1935, July 1: Agreement between the United States, Washoe County water conservation district, Truckee-Carson irrigation district, Sierra Pacific Power Co., and other users of the waters of the Truckee River, to further conserve the waters of Lake Tahoe and Truckee River by construction of additional storage features which should be so operated as to conform with present decrees and rates of river flow at designated gaging stations and at the same time permit additional benefits to be obtained.

1936, December 18: Contract Ilr-952 with Washoe County water conservation district covers \$1,000,000 construction cost of Boca Dam and appurtenant works, to be repaid in 40 equal annual installments commencing in 1944.

1937, January 15: Contract Ilr-960 between the United States, Washoe County water conservation district, and the Sierra Pacific Power Co., whereby Boca Reservoir's capacity was increased 800 acre-feet to provide pondage for the power company.

1942, January 13: Supplemental contract Ilr-952 with the Washoe County water conservation district. Excess land provisions of the Federal reclamation laws were nullified on the Truckee storage project lands as provided by the act of Congress of November 29, 1940 (Public Law, No. 883, 76th Cong.).

Summary of status of the Washoe County water conservation district repayment contracts:

Total value of contracted repayment.....	\$1,000,000
Total matured charges.....	350,340
Total matured charges repaid.....	350,340
Total matured charges unpaid.....	0

The repayment and allocation of costs:

Total project cost.....	\$1,092,423
-------------------------	-------------

Allocation to irrigation:

Reimbursable costs.....	1,011,126
Nonreimbursable costs (act of May 29, 1941).....	81,297
Total.....	1,092,423

Repayment:

Reimbursable costs.....	1,011,126
Operation and maintenance funded.....	10,832
Less contributions and revenues.....	21,958
Total.....	1,000,000

289

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1937	\$1, 000, 000							
1938	1, 000, 000							
1939	1, 000, 000							
1940	1, 000, 000							
1941	1, 000, 000							
1942	1, 000, 000							
1943	1, 000, 000	\$340		\$340	\$340		\$340	\$340
1944	1, 000, 000	25, 000		25, 000	25, 000		25, 000	25, 340
1945	1, 000, 000	25, 000		25, 000	25, 000		25, 000	50, 340
1946	1, 000, 000	25, 000		25, 000	25, 000		25, 000	75, 340
1947	1, 000, 000	25, 000		25, 000	25, 000		25, 000	100, 340
1948	1, 000, 000	25, 000		25, 000	25, 000		25, 000	125, 340
1949	1, 000, 000	25, 000		25, 000	25, 000		25, 000	150, 340
1950	1, 000, 000	25, 000		25, 000	25, 000		25, 000	175, 340
1951	1, 000, 000	25, 000		25, 000	25, 000		25, 000	200, 300
1952	1, 000, 000	25, 000		25, 000	25, 000		25, 000	225, 340
1953	1, 000, 000	25, 000		25, 000	25, 000		25, 000	250, 340
1954	1, 000, 000	25, 000		25, 000	25, 000		25, 000	275, 340
1955	1, 000, 000	25, 000		25, 000	25, 000		25, 000	300, 340
1956	1, 000, 000	25, 000		25, 000	25, 000		25, 000	325, 340
1957	1, 000, 000	25, 000		25, 000	25, 000		25, 000	350, 340
Total		350, 340		350, 340	350, 340		350, 340	
Collected				350, 340				
Uncollected				0				

TUCUMCARI PROJECT

TUCUMCARI, N. MEX.

The Tucumcari project was authorized by act of August 2, 1937 (50 Stat. 577), as amended by act of April 9, 1938 (52 Stat. 211). The finding of feasibility was approved by the President on November 1, 1938.

The project is located in eastern New Mexico in San Miguel and Quay Counties. Project works extend southeast from Conchas Dam to lands of the Arch Hurley conservancy district, adjacent to, and partially surrounding the city of Tucumcari. The purpose of the project is to provide a full water supply for the irrigation of 42,214 acres of semiarid land. Water supply for the project is obtained from Conchas Reservoir, built and operated by the Corps of Engineers, located at the confluence of the Conchas and South Canadian Rivers. The active reservoir capacity for irrigation is 271,400 acre-feet.

The project works consist of a pumping plant for use when the reservoir level is too low for gravity flow, 109.6 miles of canals, 179.5 miles of laterals, 23.8 miles of drains, and 10.0 miles of operating roads. The canal system contains

approximately 5½ miles of tunnels and 6 miles of siphons.

The total completed construction cost is \$15,474,082, all of which is allocated to irrigation. Repayment contracts with the Arch Hurley conservancy district provide for reimbursement in the amount of \$5,901,897, including funded operation and maintenance charges.

Payout schedule.—Under terms of the repayment contract of December 27, 1938, the Arch Hurley conservancy district is obligated to repay \$5,825,471 in 40 successive equal annual installments of \$145,637 commencing in 1959. Repayment in connection with a contract of July 6, 1953, for emergency installation of the pumping plant in the amount of \$76,426 commenced on August 1, 1954, with the first of 5 equal annual installments of \$15,285.

CONTRACTS

1938, December 27: Contract I114-1118 with Arch Hurley conservancy district for \$5,655,000.00.

1953, July 6: Contract 14-06-500-37 with Arch Hurley conservancy district for \$76,426.41.

1953, August 20: Contract 14-06-500-39 with Arch Hurley conservancy district for \$170,470.45.

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1955-----	\$5, 901, 897	\$15, 285	-----	\$15, 285	\$15, 285	-----	\$15, 285	\$15, 285
1956-----	5, 901, 897	15, 285	-----	15, 285	15, 285	-----	15, 285	30, 570
1957-----	5, 901, 897	15, 286	-----	15, 286	15, 286	-----	15, 286	45, 856
Total-----	-----	45, 856	-----	45, 856	45, 856	-----	45, 856	-----
Collected-----	-----	-----	-----	45, 856	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	0	-----	-----	-----	-----

RECLAMATION REPAYMENTS

Payout study

Fiscal year	Net revenue from irrigation water users	Irrigation plant in service at end of year	Interest free balance to be repaid
1955 ¹	\$15, 285	\$15, 513, 262	\$5, 886, 612
1956	15, 286	15, 474, 365	5, 871, 326
1957	15, 285	15, 474, 082	5, 856, 041
1958	15, 285	15, 474, 082	5, 840, 756
1959 ²	88, 104	15, 474, 082	5, 752, 652
1960	145, 637	15, 474, 082	5, 607, 015
1961	145, 637	15, 474, 082	5, 461, 378
1962	145, 637	15, 474, 082	5, 315, 741
1963	145, 636	15, 474, 082	5, 170, 105
1964	145, 637	15, 474, 082	5, 024, 468
1965	145, 637	15, 474, 082	4, 878, 831
1966	145, 637	15, 474, 082	4, 733, 194
1967	145, 637	15, 474, 082	4, 587, 557
1968	145, 636	15, 474, 082	4, 441, 921
1969	145, 637	15, 474, 082	4, 296, 284
1970	145, 637	15, 474, 082	4, 150, 647
1971	145, 637	15, 474, 082	4, 005, 010
1972	145, 637	15, 474, 082	3, 859, 373
1973	145, 636	15, 474, 082	3, 713, 737
1974	145, 637	15, 474, 082	3, 568, 100
1975	145, 637	15, 474, 082	3, 422, 463
1976	145, 637	15, 474, 082	3, 276, 826
1977	145, 637	15, 474, 082	3, 131, 189
1978	145, 636	15, 474, 082	2, 985, 553
1979	145, 637	15, 474, 082	2, 839, 916
1980	145, 637	15, 474, 082	2, 694, 279
1981	145, 637	15, 474, 082	2, 548, 642
1982	145, 637	15, 474, 082	2, 403, 005
1983	145, 636	15, 474, 082	2, 257, 369
1984	145, 637	15, 474, 082	2, 111, 732
1985	145, 637	15, 474, 082	1, 966, 095
1986	145, 637	15, 474, 082	1, 820, 458
1987	145, 637	15, 474, 082	1, 674, 821
1988	145, 636	15, 474, 082	1, 529, 185
1989	145, 637	15, 474, 082	1, 383, 548
1990	145, 637	15, 474, 082	1, 237, 911
1991	145, 637	15, 474, 082	1, 092, 274
1992	145, 637	15, 474, 082	946, 637
1993	145, 636	15, 474, 082	801, 001
1994	145, 637	15, 474, 082	655, 364
1995	145, 637	15, 474, 082	509, 727
1996	145, 637	15, 474, 082	364, 090
1997	145, 637	15, 474, 082	218, 453
1998	145, 636	15, 474, 082	72, 817
1999	72, 817	15, 474, 082	0

¹ 1955. Beginning of 5 equal annual installments to repay \$76,426 for installation of pumps pursuant to contract 14-06-500-37 dated July 6, 1953.

² 1959. Beginning of 40 successive equal annual (calendar year) installments of \$145,636.76 for construction and operation and maintenance of project works pursuant to contracts 11r-1118 dated Dec. 27, 1938, and 14-06-500-39 dated Aug. 20, 1953.

UMATILLA PROJECT

HERMISTON, OREG.

The Umatilla project in Umatilla and Morrow Counties in Oregon consists of three divisions. The East and West divisions, which originally comprised all of the Umatilla project, were authorized on December 4, 1905, under provisions of the original Reclamation Project Act to furnish irrigation water to approximately 36,000 acres. Construction began in 1906. Land included in the East division is nearly all in the Hermiston irrigation district, and land in the West division is all in the West Extension irrigation district. In 1923 construction of McKay Dam and Reservoir as an additional feature was approved. This dam and reservoir were constructed to store supplemental irrigation water for the South division of the project. The South division consists of the Westland and Stanfield irrigation districts, plus several individual water users.

Project features for the East division include the Cold Springs Dam and Reservoir (an off-stream reservoir), a feeder canal, and the main canal. A diversion dam in Umatilla River and a main canal 26.7 miles in length are the principal features of the West division. McKay Dam and Reservoir is the only feature in the South division with the exception of some rehabilitation work performed in the Stanfield irrigation district.

All project costs are allocated to irrigation for repayment.

EAST DIVISION

The total cost of constructing the East division features was \$2,176,891. Due to the fact that a portion of the area being irrigated contained excessively sandy soils, or was unproductive for other reasons, Congress approved a writeoff of \$863,621 under the Omnibus Adjustment Act of 1926 (44 Stat. 636). By act of June 18, 1954 (68 Stat. 254), Congress approved the current repayment contract in the amount of \$325,071, and also author-

ized an additional chargeoff in the amount of \$807,260. In addition to the contract with the Hermiston irrigation district, there are contracts with three individuals and with the city of Hermiston for repayment of \$7,775.

Operation and maintenance of this division was assumed by the Hermiston irrigation district in 1926.

Repayment contracts.—The first contract for construction of the East division was with the Umatilla River Water Users' Association in 1906. On May 31, 1921, a contract was made with the Hermiston irrigation district, in which the association was released of its guarantee and the liens and responsibilities were assumed by the district. In 1926 the contract was amended so that annual installments on the construction obligation were 5 percent of the previous 10 years' average gross crop return per acre. Payments under this contract were made for only 1 year and part of another. The present contract, dated July 6, 1954, provides for the construction obligation to be repaid in equal annual installments of \$3,150. Present irrigable acreage under this contract is 3,967.

PUBLIC NOTICES AND CONTRACTS

- 1907, December 27: Public notice. Construction charge \$60 per acre, payable in 10 equal annual installments.
- 1912, March 2: Public notice. Construction charge increased to \$70, payable in 10 graduated annual installments.
- 1915 to 1920: Various public notices were issued covering supplemental construction of pipelines at rates ranging from \$7.50 to \$40 per acre. Some payable concurrently with original construction charges and some later.
- 1921, May 31: Contract Ilr-57 with Hermiston irrigation district. District assumes obligations under individual water-right applications and for operation and maintenance deficit. Additional supplemental

construction to be done at estimated cost of \$780,000, payable after original construction has been accrued.

\$3,150 each for a period of 103 years beginning in 1953.

1926, June 23: Contract with Hermiston irrigation district. Repayment on basis of 5 percent average gross crop value of preceding 10 years. Delinquent charges and penalties funded with construction.

1954, July 6: Contract 14-06-W-67 with Hermiston irrigation district. Establishes district obligation at \$325,071, to be repaid in annual installments of

The summary of status of repayment contracts of East division:

Total value of contracted repayment.....	\$664,361
Total matured charges.....	330,040
Total matured charges repaid.....	324,274
Total matured charges unpaid.....	5,766

Construction repayment history—East division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1908		\$23,096		\$23,096	\$300		\$300	\$300
1909		44,194		44,194	1,998		1,998	2,298
1910		71,190		71,190	51,269		51,269	53,567
1911		33,776		33,776	24,337	\$34,838	59,175	112,742
1912		8,735	¹ \$14,996	¹ 6,261	4,896	35,945	40,841	153,583
1913		72,673	50,396	123,069	2,702	19,599	22,301	175,884
1914		70,980	¹ 52,401	18,579	1,730	¹ 20,121	¹ 18,391	157,493
1915	\$902,079	18,233	¹ 138,956	¹ 120,723	9,412	373	9,785	167,278
1916	874,764	15,805	¹ 8,148	7,657	5,863	2,153	8,016	175,294
1917	955,038			15,273			18,030	193,324
1918	999,943			10,200			8,685	202,009
1919	990,777			13,164			18,419	220,428
1920	1,010,626			25,390			25,918	246,346
1921	950,514	280,465		34,476	153,759		19,668	266,014
1922	² 1,967,154			¹ 4,490			1,107	267,121
1923	1,978,214			43,743			40,890	308,011
1924	1,978,214			46,292			11,966	319,977
1925	1,978,214			48,076			6,269	326,246
1926	1,978,214			48,341			2,807	329,053
1927	1,978,214	11,713	¹ 145,989	¹ 134,276	422		422	329,475
1928	1,978,214	22,574		22,574	5,793	11,587	17,380	346,855
1929	³ 1,363,706	20,864	¹ 61,534	¹ 40,670	388	¹ 50,340	¹ 49,952	296,903
1930	1,362,019	20,432		20,432	245	7,369	7,614	304,517
1931	1,362,019	16,838		16,838	199	5,528	5,727	310,244
1932	1,362,019	15,336		15,336	353	200	553	310,797
1933	1,362,019	14,048		14,048	330	130	460	311,257
1934	1,362,019	12,961		12,961	204		204	311,461
1935	1,362,019	11,874		11,874	176	131	307	311,768
1936	1,362,019	11,059		11,059	147	131	278	312,046
1937	1,362,019	10,402		10,402	133	18	151	312,197
1938	1,362,019	10,112	¹ 4,944	5,168	65		65	312,262
1939	1,362,019	9,888	¹ 4,944	4,944	62		62	312,324
1940	1,362,019	9,888		9,888	115		115	312,439
1941	1,362,019	9,616		9,616	88		88	312,527
1942	1,362,019	9,072		9,072	45		45	312,572
1943	1,362,019	9,072		9,072	23		23	312,595
1944	1,362,019	9,616		9,616	25		25	312,620
1945	1,362,019	10,703		10,703	28		28	312,648
1946	1,362,019	11,791		11,791	29		29	312,677
1947	1,362,019	12,849		12,849	24		24	312,701
1948	1,362,019	14,452		14,452	16		16	312,717
1949	1,362,019	16,354		16,354	15	20	35	312,752
1950	1,362,019	17,985		17,985	17		17	312,769
1951	1,362,019	19,344		19,344	8		8	312,777
1952	1,362,019	21,247		21,247				312,777
1953	1,362,019	22,334		22,334				312,777
1954	1,362,019	11,167		11,167				312,777
1955	⁴ 664,361	9,450	¹ 336,932	¹ 327,482	3,150		3,150	315,927
1956	664,361	3,150		3,150	3,150	814	3,964	319,891
1957	664,361	3,150		3,150	3,150	1,233	4,383	324,274
Total.....		1,048,488	-718,448	330,040	274,666	49,608	324,274	-----
Collected.....				324,274				-----
Uncollected.....				5,766				-----

¹ Decreases cover cancellations of water-right applications, funding of delinquent charges, and cancellation of delinquent charges.

² Obligation increased due to provisions of 1921 contract.

³ Obligation reduced due to provisions of 1926 contract.

⁴ Obligation reduced due to provisions of contract dated July 6, 1954, with Hermiston irrigation district.

*Operation and maintenance assessments history—
East division*

Fiscal year	Accruals	Collections
1908.....	\$3, 849	\$50
1909.....	8, 684	3, 574
1910.....	11, 797	9, 691
1911.....	5, 645	12, 586
1912.....	18, 789	15, 627
1913.....	17, 947	5, 252
1914.....	8, 161	4, 989
1915.....	¹ 1, 746	6, 328
1916.....	11, 631	11, 159
1917.....	17, 549	16, 211
1918.....	17, 920	17, 535
1919.....	20, 104	20, 259
1920.....	30, 138	27, 838
1921.....	35, 492	25, 828
1922.....	¹ 467	10, 885
1923.....	16, 084	18, 045
1924.....	32, 006	28, 026
1925.....	30, 634	12, 551
1926.....	30, 203	412
1927.....	¹ 67, 374	143
1928.....	6, 213	0
1929.....	21, 753	28, 023
1930.....	57	57
Total.....	275, 069	275, 069

¹ Decrease.

SOUTH DIVISION

The South division consists of some 15,000 irrigable acres in the Stanfield and Westland irrigation districts and other water users contracting for storage in McKay Reservoir which cost \$2,260,182. In addition to having a water rental contract for storage, the Stanfield irrigation district has a contract for repayment of \$97,830 expended by the United States for rehabilitation of the distribution system for the district.

Repayment contracts.—On May 3, 1927, the Stanfield irrigation district contracted for 20½ percent of the storage in McKay Reservoir, payable in 40 graduated annual installments. The Stanfield irrigation district made payments on the storage contract as due, but in 1948 the annual installment increased from \$4,000 to \$12,000 and it became apparent the district could not meet the higher payment. As a result of an investigation of economic conditions and repayment ability in the district, an amendatory repayment contract negotiated under section 7 of the Reclamation Project Act of 1939 (53 Stat. 1187), was made effective on November 18, 1949, following congressional approval. The amendatory contract provided that 30 percent of the irrigation water stored each year in McKay Reservoir would be

made available to the district on a water rental basis of 25 cents an acre-foot. Additional water, when available, would also be subject to water rental at the same rate. In addition, the district is to continue repaying its obligation for rehabilitation at the rate provided in earlier contracts.

On April 28, 1931, the Westland irrigation district contracted for 40 percent of the storage in McKay Reservoir, payable in 40 graduated annual installments. The contract with the Westland irrigation district was amended to provide for water rental at 25 cents an acre-foot in an amendatory contract dated November 18, 1949.

Net revenues for McKay water, after operation and maintenance costs of McKay are deducted, will be applied against construction costs.

CONTRACTS

1923, September 19: Contract with Stanfield irrigation district for purchase of 15,000 acre-feet of storage in McKay Reservoir. Not to exceed \$800,000, payable in 20 annual installments.

1927, May 3: Contract with Stanfield irrigation district, for purchase of 20½ percent of storage in McKay Reservoir, payable in 40 graduated annual installments.

1931, April 28 Ir-652, and 1937, May 17: Contracts with Westland irrigation district for 40 percent of storage in McKay Reservoir, payable in 40 graduated annual installments.

1934, February 12: Contract with Stanfield irrigation district for betterment of drainage and distribution systems. Cost \$97,830, payable in 39 equal annual installments.

1936, January 11: Contract Ir-865 with Oregon State Game Commission for 40 acre-feet of water stored in McKay Reservoir. Cost \$1,400, to be repaid in 20 equal annual installments.

1949, November 18: Contract Ir-1549 with Stanfield irrigation district for 30 percent of water stored in McKay Reservoir, at 25 cents an acre-foot of water used each year. Also to complete repayment on rehabilitation obligation as per 1934 contract.

1949, November 18: Contract with Westland irrigation district for 30 percent of water stored in McKay Reservoir at 25 cents an acre-foot of water used each year.

1956, May 4: Contract 14-06-100-970 with Oregon State Board of Control for 350 acre-feet of water stored in McKay Reservoir. Cost of \$10,500 was paid in lump sum at time contract was completed.

1957, May 31: Contract 14-06-100-1218 with Herman Beilke for 2 acre-feet of water stored in McKay Reservoir. Cost of \$60 was paid in lump sum at time contract was completed.

RECLAMATION REPAYMENTS

Construction repayment history—South division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1930-----	\$5, 411	\$271	-----	\$271	\$271	-----	\$271	\$271
1931-----	5, 411	271	-----	271	271	-----	271	542
1932-----	852, 032	6, 509	-----	6, 509	3, 442	-----	3, 442	3, 984
1933-----	852, 255	271	¹ \$2, 786	¹ 2, 515	271	\$281	552	4, 536
1934-----	1, 381, 116	271	-----	271	271	-----	271	4, 807
1935-----	1, 386, 594	2, 078	-----	2, 078	2, 078	-----	2, 078	6, 885
1936-----	1, 386, 256	2, 129	-----	2, 129	2, 129	-----	2, 129	9, 014
1937-----	1, 385, 486	2, 742	-----	2, 742	2, 742	-----	2, 742	11, 756
1938-----	1, 385, 486	5, 400	¹ 1, 782	3, 618	3, 618	-----	3, 618	15, 374
1939-----	1, 385, 486	7, 438	-----	7, 438	3, 409	-----	3, 409	18, 783
1940-----	1, 385, 486	5, 386	¹ 4, 029	1, 357	5, 386	-----	5, 386	24, 169
1941-----	1, 385, 486	9, 322	-----	9, 322	5, 293	-----	5, 293	29, 462
1942-----	1, 385, 486	9, 155	-----	9, 155	5, 026	-----	5, 026	34, 488
1943-----	1, 385, 486	9, 462	¹ 8, 158	1, 304	5, 333	-----	5, 333	39, 821
1944-----	1, 385, 486	9, 137	¹ 1, 717	7, 420	4, 908	2, 239	7, 147	46, 968
1945-----	1, 385, 486	9, 272	381	9, 653	5, 597	-----	5, 597	52, 565
1946-----	1, 385, 486	25, 369	¹ 6, 724	18, 645	6, 654	-----	6, 654	59, 219
1947-----	1, 385, 486	24, 714	¹ 19, 096	5, 618	6, 067	-----	6, 067	65, 286
1948-----	1, 385, 486	23, 535	273	23, 808	4, 412	396	4, 808	70, 094
1949-----	² 147, 140	21, 713	¹ 39, 051	¹ 17, 338	2, 597	65	2, 662	72, 756
1950-----	147, 140	2, 714	¹ 19, 000	¹ 16, 286	2, 714	-----	2, 714	75, 470
1951-----	147, 140	2, 714	-----	2, 714	2, 714	-----	2, 714	78, 184
1952-----	147, 140	2, 714	-----	2, 714	2, 714	-----	2, 714	80, 898
1953-----	147, 140	2, 714	-----	2, 714	2, 714	-----	2, 714	83, 612
1954-----	147, 140	2, 714	-----	2, 714	2, 714	-----	2, 714	86, 326
1955-----	147, 140	2, 713	-----	2, 713	2, 713	-----	2, 713	89, 039
1956-----	157, 640	13, 144	-----	13, 144	13, 144	-----	13, 144	102, 183
1957-----	157, 700	2, 704	-----	2, 704	2, 704	-----	2, 704	104, 887
Total-----	-----	206, 576	¹ 101, 689	104, 887	101, 906	2, 981	104, 887	-----
Collected-----	-----	-----	-----	104, 887	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	0	-----	-----	-----	-----

¹ Decrease. Decreases cover amounts deferred under relief acts.² Stanfield and Westland irrigation districts placed on water rental basis; value of contract reduced to amount that had been paid by each on the repayment contracts that had been in effect prior to 1949.

The summary of status of repayment contracts:

Total value of contracted repayment.....	¹ \$157, 700
Total matured charges.....	104, 887
Total matured charges repaid.....	104, 887
Total matured charges unpaid.....	0

¹ In 1949, when the Stanfield and Westland Irrigation districts were placed on a water rental basis, the value of the contract was reduced to the amount that had been paid by each on the repayment contracts that had been in effect prior to 1949.

Operation and maintenance assessments history— South division

Fiscal year	Accruals	Collections
1927.....	\$2, 700	\$896
1928.....	4, 040	4, 624
1929.....	3, 201	4, 421
1930.....	3, 599	3, 599
1931.....	3, 464	3, 464
1932.....	3, 982	1, 100
1933.....	2, 725	4, 127
1934.....	3, 197	4, 677
1935.....	3, 097	3, 097
1936.....	3, 273	2, 293
1937.....	3, 171	3, 460
1938.....	3, 255	3, 946
1939.....	3, 414	2, 770
1940.....	3, 246	3, 890
1941.....	2, 862	2, 835
1942.....	3, 736	1, 687
1943.....	2, 865	3, 458
1944.....	3, 739	5, 169
1945.....	3, 570	3, 623
1946.....	4, 169	4, 169
1947.....	4, 686	4, 686
1948.....	7, 403	7, 403
1949.....	5, 649	5, 649
1950.....	382	382
1951.....	44	44
1952.....	48	48
1953.....	33	33
1954.....	33	33
1955.....	26	26
1956.....	26	26
1957.....	90	90
Total.....	85, 725	85, 725

WEST DIVISION

The total cost of constructing the West division was \$874,079. Repayments commenced in 1918, but the West extension irrigation district became delinquent in 1931. In 1926 Congress approved a writeoff of \$24,720 due to the unproductive nature of a portion of the land in the West extension irrigation district. By act of June 18, 1954 (68 Stat. 254), Congress approved the current repayment contract in the amount of \$233,176 and also authorized an additional chargeoff in the amount of \$613,210.

Operation and maintenance of the system has been by the West extension irrigation district since 1926.

Repayment contracts.—Installments on the construction obligation first came due on the West division under individual water-right contracts. The first contract with the West extension irrigation district was on April 6, 1920. The district assumed the outstanding obligation of all the individual water-right contracts at that time. On April 27, 1926, the contract was amended to provide for repayment on the crop production basis, with annual installments 5 percent of average gross crop income per acre for preceding 10 years. The district also assumed operation and maintenance of the system under that contract.

The present contract, dated July 6, 1954, establishes the irrigable acreage at 2,853 and provides equal annual construction payments of \$1,427 each.

PUBLIC NOTICES AND CONTRACTS

- 1916, May 12: Public notice. Construction charge \$92 per acre, payable in 20 graduated annual installments.
- 1917, December 11: Public notice. Construction charge for lands having vested rights. Rates \$14 and \$20 per acre, payable in 10 equal annual installments.
- 1919, May 24: Public notice. Construction charge for lands having vested rights. Rates from \$14 to \$33.10 per acre, payable in 10 equal annual installments.
- 1920, April 6: Contract Ilr-47 with West extension irrigation district. District assumes obligations under individual water-right applications. Sum of \$90,000 to be expended for supplemental construction to be paid in 1938 and 1939.
- 1926, April 27: Contract with West extension irrigation district. Annual installments 5 percent of average gross acre income for 10 preceding years. Delinquent charges and penalties funded with construction.
- 1954, July 6: Contract 14-06-W-68 with West extension irrigation district. Establishes district obligation at \$233,176, to be repaid in annual installments of \$1,427 each for a period of 163 years beginning in 1955.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$319, 981
Total matured charges.....	90, 372
Total charges repaid.....	90, 372
Total matured charges unpaid.....	0

Construction repayment history—West division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1918	\$356, 289			\$12, 529			\$11, 607	\$11, 607
1919	590, 679			8, 720			8, 094	19, 701
1920	545, 342			9, 267	\$48, 738		8, 284	27, 985
1921	719, 582			13, 872			415	28, 400
1922	719, 949			8, 513			7, 494	35, 894
1923	726, 860	\$21, 231	\$169	21, 400	322	\$12, 372	12, 694	48, 588
1924	726, 860			29, 858			12, 844	61, 432
1925	726, 860	163, 193		34, 365				61, 432
1926	726, 860			46, 069				61, 432
1927	726, 860	7, 645	¹ 122, 904	¹ 115, 259				61, 432
1928	732, 073	13, 943		13, 943	3, 086	7, 378	10, 464	71, 896
1929	732, 073	13, 358		13, 358	91	6, 023	6, 114	78, 010
1930	732, 073	12, 907		12, 907		5, 478	5, 478	83, 488
1931	732, 073	12, 202		12, 202		3, 103	3, 103	86, 591
1932	732, 073	11, 318		11, 318				86, 591
1933	732, 073	10, 596		10, 596				86, 591
1934	732, 073	9, 337		9, 337				86, 591
1935	732, 073	8, 056		8, 056				86, 591
1936	732, 073	7, 340		7, 340				86, 591
1937	732, 073	6, 629		6, 629				86, 591
1938	732, 073	3, 209		3, 209				86, 591
1939	732, 073	3, 102		3, 102				86, 591
1940	732, 073	6, 024		6, 024				86, 591
1941	732, 073	5, 673		5, 673				86, 591
1942	732, 073	5, 342		5, 342				86, 591
1943	732, 073	5, 176		5, 176				86, 591
1944	732, 073	5, 973		5, 973	498		498	87, 089
1945	732, 073	6, 072		6, 072				87, 089
1946	727, 683	6, 056		6, 056		¹ 283	¹ 283	86, 806
1947	727, 683	7, 340		7, 340				86, 806
1948	727, 683	7, 774		7, 774				86, 806
1949	727, 683	8, 349		8, 349				86, 806
1950	727, 683	9, 214		9, 214				86, 806
1951	727, 683	9, 920		9, 920				86, 806
1952	727, 683	10, 443		10, 443				86, 806
1953	727, 683	11, 110		11, 110				86, 806
1954	727, 683	5, 688		5, 688				86, 806
1955	² 319, 981	713	¹ 204, 679	¹ 203, 966	713		713	87, 519
1956	319, 981	1, 427		1, 427	1, 427		1, 427	88, 946
1957	319, 981	1, 426		1, 426	1, 426		1, 426	90, 372
Total		417, 786	¹ 327, 414	90, 372	56, 301	34, 071	90, 372	
Collected				90, 372				
Uncollected				0				

¹ Decreases cover funding of delinquent charges and cancellation of prior delinquent charges.² Obligation reduced by contract of July 6, 1954, with West extension irrigation district.

*Operation and maintenance assessments history—
West division*

Fiscal year	Accruals	Collections
1918-----	\$4, 686	\$2, 729
1919-----	8, 041	5, 753
1920-----	14, 370	12, 372
1921-----	10, 409	4, 727
1922-----	7, 935	4, 063
1923-----	12, 843	12, 699
1924-----	10, 517	10, 938
1925-----	10, 186	14, 906
1926-----	9, 558	7, 591
1927-----	¹ 7, 601	4, 631
1928-----	¹ 510	25
1929-----	4	4
Total-----	80, 438	80, 438

¹ Decrease.

The determination of repayment obligation

Item	East division	West division	South division	Total
Total construction cost-----	¹ \$2, 201, 891	\$874, 079	\$2, 258, 808	\$5, 334, 778
Funded charges-----	133, 351	83, 832	331	217, 514
Less:				
Chargeoffs by Congress-----	1, 670, 881	637, 930		2, 308, 811
Contributions-----			1, 000	1, 000
Other revenues ² -----			2, 100, 439	2, 100, 439
Repayment contracts-----	¹ 664, 361	319, 981	157, 700	1, 142, 042

¹ Includes rehabilitation and betterment, \$25,000.

² Past and future revenues from the Nov. 18, 1949, water service contracts with Stanfield and Westland irrigation districts, and others.

UNCOMPAHGRE PROJECT

MONTROSE, COLO.

The Uncompahgre project was authorized by the Secretary of the Interior on March 14, 1903. The project lands are located in the counties of Montrose and Delta in western Colorado.

The original project was built to supply water to 140,000 acres of land. The project features include a diversion dam on the Gunnison River, Gunnison tunnel with a length of 5.79 miles, South Canal having a length of 11.44 miles, 557 miles of main distribution canals, diversion structures and miscellaneous tunnels, and other structures. Since the project has been in operation, Taylor Park Dam and Reservoir and 205 miles of open drains have been constructed in accordance with approval by the President on November 6, 1935.

The total cost of constructing the Uncompahgre irrigation facilities is \$8,965,959. The entire amount, with the exception of the congressional chargeoff, is repayable under the terms of the repayment contract with the Uncompahgre Valley Water Users Association. The Omnibus Adjustment Act of May 25, 1926 (44 Stat. 636), empowered the Secretary of the Interior to make an adjustment of water-right charges on lands that were found to be unproductive. Under the authority of this act, \$2,896,634 construction charges were deducted from the total repayment obligation of the water users.

The allocation and repayment of costs:

Total project cost.....	\$8,965,959
<hr/>	
Allocation of irrigation costs:	
Reimbursable costs.....	6,069,325
Chargeoff by Congress (act of May 25, 1926).....	2,896,634
Total.....	8,965,959
<hr/>	

Repayment of reimbursable costs:

From irrigation water users:

For irrigation plant investment....	\$6,069,325
Operation and maintenance funded..	490,063
Interest and penalties funded.....	340,230
<hr/>	
Subtotal.....	6,899,618
Less revenues.....	25,601
<hr/>	

Total repayment obligation..... 6,874,017

The project was operated and maintained by the United States from 1908 to 1932. In 1932 the Uncompahgre Valley Water Users Association took over the operation and maintenance of the project.

Repayment contracts.—The original repayment contract Ilr-657 was signed by the Uncompahgre Valley Water Users Association on May 10, 1915. The amendatory contract Ilr-1530 signed December 13, 1948, provides for the full repayment of costs allocated to irrigation, including interest on delinquency, in approximately 99 years—the annual payment of \$60,000 to be paid one-half on May 1 and one-half on August 1 of each year commencing on May 1, 1950.

PUBLIC NOTICES AND CONTRACTS

- 1915, May 10: Contract Ilr-657 with the Uncompahgre Valley Water Users Association. Association agreed to construction of project facilities and assumed cost of obligations.
- 1922, April 12: Public notice fixed 1922 as the year for beginning repayment of the project indebtedness in 20 annual installments.
- 1927, April 8: Contract Ilr-657 with Uncompahgre Valley Water Users Association. Association assumes obligations under individual water-right applications. Unpaid construction and operation and maintenance charges to be paid in 10 and 4 equal annual installments, respectively, with 6 percent interest.

- 1931, August 4: Supplemental contract Ilr-657, with Uncompahgre Valley Water Users Association. Repayment period extended to 40 years. All delinquent charges, including 1931 installment, to be paid in annual installments of \$85,000 beginning in 1962.
- 1934, February 16: Supplemental contract Ilr-657 with Uncompahgre Valley Water Users Association. Rehabilitation of South Canal and other features. Estimated cost, \$325,000, payable in 40 equal annual installments.
- 1934, May 31: Supplemental contract Ilr-657 with Uncompahgre Valley Water Users Association. Association contracted for construction of Taylor Park Dam. Estimated cost \$2,000,000, payable in 40 graduated annual installments.
- 1936, February 17: Supplemental contract Ilr-657 with Uncompahgre Valley Water Users Association for construction of drainage works. Estimated cost, \$500,000, payable in 6 equal annual installments starting in 1962.
- 1936, August 23: Supplemental contract Ilr-657 with Uncompahgre Valley Water Users Association for concreting Gunnison Tunnel. Estimated cost, \$300,000, payable in 40 annual installments starting in 1940.

1940, July 5: Supplemental contract Ilr-657 with the Uncompahgre Valley Water Users Association amends the construction costs as outlined in two contracts dated February 17, 1936, and May 31, 1934. The costs shown in the 1936 contract have been increased to \$600,000, while the costs in the 1934 contract have been lowered to \$1,500,000.

1948, December 13: Amendatory contract Ilr-1530 with the Uncompahgre Valley Water Users Association provides for a new payout schedule of the association's indebtedness to the United States in accordance with the act of May 6, 1949 (ch. 93, 63 Stat. 62). The adjusted indebtedness of \$5,957,912.95, to be paid in \$60,000 installments each year with one-half payable on May 1 and one-half on August 1 starting on May 1, 1950.

The summary of status of the Uncompahgre Valley Water Users Association repayment contracts:

Total value of contracted repayment.....	\$6, 874, 017
Total matured charges.....	1, 266, 838
Total matured charges repaid.....	1, 266, 838
Total matured charges unpaid.....	0

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1922	\$6, 713, 585	\$934		\$934	\$934		\$934	\$934
1923	6, 713, 585	145, 327		145, 327	42, 632		42, 632	43, 566
1924	6, 713, 585	118, 237		118, 237	32, 567	\$12, 714	45, 281	88, 847
1925	6, 713, 585	112, 183	¹ \$6, 058	106, 125	24, 174	8, 079	32, 253	121, 100
1926	6, 713, 585	110, 395	¹ 3, 694	106, 701	29, 071	96, 839	125, 910	247, 010
1927	6, 713, 585	189, 206	¹ 46, 347	142, 859	55, 177	35, 952	91, 129	338, 139
1928	6, 713, 585	91, 237	¹ 30, 737	60, 500	52, 499	6, 256	58, 755	396, 894
1929	² 4, 998, 446	99, 651	¹ 194, 469	¹ 94, 818	4, 061	39, 739	43, 800	440, 694
1930	4, 997, 506	123, 547	¹ 1, 640	121, 907	5, 758	42, 826	48, 584	489, 278
1931	4, 993, 763	³ 120, 090	¹ 1, 044	119, 046	1, 361	46	1, 407	490, 685
1932	4, 939, 984	⁽³⁾	¹ 336, 602	¹ 336, 602		¹ 469	¹ 469	490, 216
1933	4, 945, 995	³ 90, 284	¹ 103	90, 181		¹ 103	¹ 103	490, 113
1934	5, 270, 985	³ 90, 284		90, 284			0	490, 113
1935	7, 288, 114	⁽³⁾	¹ 180, 568	¹ 180, 568			0	490, 113
1936	7, 785, 353	³ 156		156	156		156	490, 269
1937	8, 085, 464	³ 53, 553		53, 553	8, 790		8, 790	499, 059
1938	8, 082, 025	³ 53, 263		53, 263	10, 031	19, 378	29, 409	528, 468
1939	8, 094, 525	³ 98, 526		98, 526	9, 368	10, 326	19, 694	548, 162
1940	8, 094, 525	³ 123, 594	¹ 45, 164	78, 430	10, 752	6, 692	17, 444	565, 606
1941	8, 094, 525	123, 594		123, 594	8, 936	8, 105	17, 041	582, 647
1942	8, 102, 679	123, 715		123, 715	9, 128	808	9, 936	592, 583
1943	⁴ 7, 708, 747	123, 796		123, 796	9, 233	5, 834	15, 067	607, 650
1944	7, 708, 747	123, 755		123, 755	8, 346	10, 701	19, 047	626, 697
1945	⁴ 7, 554, 248	123, 796		123, 796	9, 063	5, 757	14, 820	641, 517
1946	7, 552, 433	123, 840	¹ 104	123, 736	8, 992	3, 296	12, 288	653, 805
1947	7, 552, 433	124, 340		124, 340	9, 603	1, 931	11, 534	665, 339
1948	7, 552, 433	123, 830		123, 830	9, 268	2, 807	12, 075	677, 414
1949	7, 552, 433	123, 830		123, 830	1, 094		1, 094	678, 508
1950	⁵ 6, 774, 278	30, 000	¹ 1, 072, 068	¹ 1, 042, 068	30, 000	⁶ 137, 857	⁶ 167, 857	846, 365
1951	6, 774, 278	60, 000		60, 000	60, 000		60, 000	906, 365
1952	6, 774, 278	60, 000		60, 000	60, 000		60, 000	966, 365
1953	⁷ 6, 869, 807	60, 471		60, 471	60, 471		60, 471	1, 026, 836
1954	⁷ 6, 874, 017	60, 000		60, 000	60, 000		60, 000	1, 086, 836
1955	6, 874, 017	60, 000		60, 000	60, 000		60, 000	1, 146, 836
1956	6, 874, 017	60, 002		60, 002	60, 002		60, 002	1, 206, 838
1957	6, 874, 017	60, 000		60, 000	60, 000		60, 000	1, 266, 838
Total		3, 185, 436	¹ 1, 918, 598	1, 266, 838	811, 467	455, 371	1, 266, 838	
Collected				1, 266, 838				
Uncollected				0				

¹ Decrease. Decreases are due to cancellation of water-right applications, funding of delinquent charges, and deferments under relief acts.

² Reduction of obligation due to provisions of 1927 contract.

³ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$95,773; 1932, \$93,196; 1933, \$90,488; 1935, \$90,393; 1936, \$45,036. Construction charges deferred under acts of Aug. 21, 1937, and May 31, 1939, 1937, \$45,164, 1938, \$45,164.

⁴ Reductions in obligations due to adjusting estimated costs to actual costs.

⁵ Charge of class 6 lands, less interest funded and construction deficit.

⁶ Advance payments and water-rental credits.

⁷ Increase in obligation due to new stock subscriptions under provisions of Dec. 13, 1948, contract.

VALE PROJECT

VALE, OREG.

The Vale project was found feasible by the Secretary of the Interior on October 20, 1926, and approved by the President on October 21, 1926, under the provisions of section 4 of the act of June 25, 1910 (36 Stat. 836) and subsection B of section 4 of the act of December 5, 1924 (43 Stat. 702). The project furnishes water to about 32,000 acres of land. Prior to construction, approximately 28,000 acres now in the project had never been under irrigation. The remainder, or about 4,000 acres, were receiving an inadequate water supply through private efforts.

The major works of the project are the Warm Springs storage dam, the Agency Valley storage dam, the Namorf diversion dam, the Vale Main Canal and Bully Creek siphon, and the lateral distribution system. The Warm Springs Dam was built by the Warm Springs irrigation district prior to construction of the Vale project. The United States purchased a half interest in the Warm Springs Dam and Reservoir and installed flashboards on the crest of the dam to increase the storage capacity of the reservoir.

The main units of the project are the Harper and Little Valley unit, the East and West Bench unit, and the Willow Creek unit. The total cost of constructing the project is \$4,866,824. Contributions and other credits amount to \$43,817. Funded operation and maintenance costs are \$199,281. The net cost, which the water users are obligated to repay, is \$5,022,288.

The Vale Oregon irrigation district, the water users' agency, operates and maintains the project. With the exception of the reserved works, the

project was turned over to the water users on January 1, 1949. Operation and maintenance of the reserved works was assumed by the water users on January 1, 1955.

CONTRACTS AND PUBLIC NOTICE

- 1926, October 22: Contract Ilr-64 with the Vale Oregon irrigation district provided for the repayment of construction costs not to exceed \$4,500,000, to be repaid in 39 annual installments.
- 1932, March 28: Supplemental contract increased maximum obligation to \$5,100,000.
- 1949, April 11: Amended contract Ilr-1552, Vale Oregon irrigation district provides for repayment of a maximum of \$5,012,000 under normal and percentage plan as modified by parity and extended payout period to approximately 73 years. Maximum repayment will be reduced to actual cost upon determination.
- 1954, April 21: Notice to district from Assistant Secretary of the Interior stating actual project costs at \$5,022,288.

Rehabilitation and betterment contracts.—The amended repayment contract Ilr-1552 provides for repayment of cost of rehabilitation and betterment of project works not to exceed \$50,000. Repayment shall be in whatever additional installments are necessary, computed in the same manner as the construction and funded operation and maintenance payment.

The summary of status of the Vale Oregon irrigation district repayment contracts:

Total value of contracted repayment.....	\$5, 022, 288
Total matured charges.....	546, 641
Total matured charges repaid.....	546, 641
Total matured charges unpaid.....	0

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1947-----	\$5, 003, 027	\$32, 000	-----	\$32, 000	\$32, 000	-----	\$32, 000	\$32, 000
1948-----	¹ 5, 062, 783	64, 000	-----	64, 000	64, 000	-----	64, 000	96, 000
1949-----	² 5, 012, 000	64, 000	-----	64, 000	64, 000	-----	64, 000	160, 000
1950-----	5, 012, 000	32, 000	-----	32, 000	32, 000	-----	32, 000	192, 000
1951-----	5, 012, 000	73, 664	-----	73, 664	73, 664	-----	73, 664	265, 664
1952-----	5, 012, 000	87, 898	-----	87, 898	87, 898	-----	87, 898	353, 562
1953-----	³ 5, 061, 921	64, 431	-----	64, 431	64, 431	-----	64, 431	417, 993
1954-----	⁴ 5, 063, 068	27, 498	-----	27, 498	27, 498	-----	27, 498	445, 491
1955-----	⁵ 5, 022, 288	39, 917	-----	39, 917	39, 917	-----	39, 917	485, 408
1956-----	5, 022, 288	21, 450	-----	21, 450	21, 450	-----	21, 450	506, 858
1957-----	5, 022, 288	39, 783	-----	39, 783	39, 783	-----	39, 783	546, 641
Total-----		546, 641	-----	546, 641	546, 641	-----	546, 641	-----
Collected-----			-----	546, 641		-----		-----
Uncollected-----			-----	0		-----		-----

¹ Includes funded operation and maintenance totaling \$59,756.² Adjusted to amount in amendatory repayment contract Ilr-1552, dated Apr. 11, 1949.³ Rehabilitation and betterment cost added.⁴ Additional rehabilitation and betterment costs added.⁵ Adjusted by actual cost notice.*Operation and maintenance assessments history*

Fiscal year	Accruals	Collections
1934-----	\$8, 500	\$5, 697
1935-----	2, 287	8, 479
1936-----	12, 363	11, 459
1937-----	15, 000	19, 025
1938-----	22, 207	19, 864
1939-----	24, 058	24, 229
1940-----	25, 132	22, 693
1941-----	31, 968	41, 092
1942-----	28, 232	32, 642
1943-----	35, 675	20, 242
1944-----	46, 675	64, 490
1945-----	53, 445	35, 630
1946-----	51, 905	72, 205
1947-----	48, 668	29, 468
1948-----	34, 593	51, 093
1949-----	29, 069	11, 469
1950-----	3, 085	4, 223
1951-----	5, 891	4, 753
1952-----	4, 688	4, 688
1953-----	4, 276	4, 276
1954-----	4, 996	6, 183
1955-----	2, 672	1, 485
Total-----	495, 385	495, 385

VENTURA RIVER PROJECT

VENTURA, CALIF.

The Ventura River project, located in western Ventura County in the basin of the Ventura River, Calif., was authorized by act of March 1, 1956 (70 Stat. 32).

A repayment contract pursuant to section 9 (d) and 9 (c) of the 1939 Reclamation Project Act (53 Stat. 1187) and the authorizing legislation was executed on March 7, 1956.

The purpose of the project is to furnish new and supplemental domestic and irrigation water to the project service area. The principal project works are Robles diversion dam on the Ventura River; Robles-Casitas Canal which is about 5 miles long with a capacity of 500 cubic feet per second leading into Casitas Reservoir; Casitas Reservoir, located on Coyote Creek, of 250,000 acre-feet capacity; approximately 33 miles of project conveyance conduit; 7 pumping plants whose aggregate capacity is 140 cubic feet per second and 6 balancing reservoirs with an aggregate capacity of 270 acre-feet.

The total estimated cost of the project is \$27,700,000, including \$100,000 nonreimbursable for minimum recreational facilities in the vicinity of Casitas Reservoir, leaving a total reimbursable cost of \$27,600,000. To date, \$676,983 has been advanced by the local water users. The reimbursable cost is allocated by the repayment contract, 57.33 percent to irrigation and 42.67 percent to municipal and industrial water supply. These project costs are to be repaid in full, including interest on the portion allocated to municipal and industrial water supply at a rate of 2.591 percent per annum. The interest on the municipal and industrial water supply will include interest during construction.

The repayment contract establishes a specified annual payment for both irrigation and municipal and industrial water as follows:

Irrigation (10-year development period):

1.5 percent next 30 years estimated installment.....	\$229, 785
5.5 percent last 10 years estimated installment.....	840, 500

Municipal and industrial water:

	<i>Per year</i>
First 5 years.....	\$165, 000
6th through 10th year.....	280, 000
11th through 15th year.....	335, 000
16th through 20th year.....	500, 000
21st through 25th year.....	615, 000
26th through 30th year.....	725, 000
31st through 35th year.....	835, 000
36th through 40th year.....	1, 000, 000

Annual payments will be adjusted to reflect actual costs and the 2.591 percent interest rate. Estimated repayment includes \$9,652,401 interest on the municipal and industrial allocation calculated at 2½ percent.

Under the terms of the repayment contract the project works will be transferred to the water users for operation immediately upon completion.

The payout schedule is based upon the estimated project costs with interest at 2½ percent. It also shows the district's proposed method of financing its obligations under the contract based upon sales of water for municipal and industrial use at \$50 per acre-foot and for irrigation use at \$25 per acre-foot, with the balance to be recovered from taxation. It is assumed that the revenue from taxation will not require an appreciable increase in the district's present tax rates. These taxes have raised the amounts necessary to make the advance payment used for the preparation of plans and specifications.

The cost allocation:

Total cost (reimbursable).....	\$27, 600, 000
Less prepayment.....	676, 983
Net amount to be repaid.....	26, 923, 017

Allocation of costs:

Irrigation (57.33 percent)-----	\$15,823,080
Municipal and industrial (42.67 percent)-----	11,776,920
	<u>27,600,000</u>

REPAYMENT BASIS

The portion of annual cost not covered by water sales revenue will be obtained through ad valorem tax levy on all property in district.

Municipal and industrial allocation.—Repayment in 40 years. Annual payments of principal and interest closely proportional to estimated rate of buildup in demand for municipal and industrial water with rate of payment increased in 5 year increments as follows: $\frac{3}{4}$ percent of total amortiza-

tion cost (interest+principal) annually for 1st to 5th years; $1\frac{1}{4}$ percent, 6th to 10th; $1\frac{1}{2}$ percent, 11th to 15th; $2\frac{1}{4}$ percent, 16th to 20th; $2\frac{3}{4}$ percent, 21st to 25th; $3\frac{1}{4}$ percent, 26th to 30th; $3\frac{3}{4}$ percent, 31st to 35th; $4\frac{1}{2}$ percent, 36th to 40th.

Irrigation allocation.—Repayment in 40 equal annual payments without interest, commencing after a 10-year development period. Surplus municipal and industrial revenue (total annual revenue less operation and maintenance costs for municipal and industrial) applied to irrigation repayment after completion of municipal and industrial repayment. Revenues from irrigation water sales in initial 10-year period are assumed to cover operation and maintenance costs. Total repayment by district—\$37,083,342.54.

Payout schedule

Municipal and industrial water

Project year	Fiscal year	Revenue			Annual operation and maintenance costs	Annual payments (principal and interest)	Interest at 2½ percent	Principal payment	Balance to be repaid ¹	Municipal and industrial revenue credited to irrigation
		Water sales (\$50/AF)	Taxation	Total						
1.....	1961	\$100,000	\$111,538.78	\$211,538.78	\$44,400	\$167,138.78	\$100,929.21	\$66,209.57	\$12,111,505.55	
2.....	1962	100,000	111,538.78	211,538.78	44,400	167,138.78	301,132.40	-133,993.62	12,045,295.98	
3.....	1963	100,000	111,538.78	211,538.78	44,400	167,138.78	304,482.24	-137,343.46	12,179,289.60	
4.....	1964	100,000	111,538.78	211,538.78	44,400	167,138.78	307,915.83	-140,777.05	12,316,633.06	
5.....	1965	100,000	111,538.78	211,538.78	44,400	167,138.78	311,435.25	-144,296.47	12,457,410.11	
6.....	1966	150,000	174,164.63	324,164.63	45,600	278,564.63	315,042.66	-36,478.03	12,601,706.58	
7.....	1967	150,000	174,164.63	324,164.63	45,600	278,564.63	315,954.62	-37,389.99	12,638,184.61	
8.....	1968	150,000	174,164.63	324,164.63	45,600	278,564.63	316,889.36	-38,324.73	12,675,574.60	
9.....	1969	150,000	174,164.63	324,164.63	45,600	278,564.63	317,847.48	-39,282.55	12,713,899.33	
10.....	1970	150,000	174,164.63	324,164.63	45,600	278,564.63	318,829.55	-40,264.92	12,753,182.18	
11.....	1971	200,000	180,977.55	380,977.55	46,700	334,277.55	319,836.18	-14,441.37	12,793,447.10	
12.....	1972	200,000	180,977.55	380,977.55	46,700	334,277.55	319,876.18	14,802.41	12,779,005.73	
13.....	1973	200,000	180,977.55	380,977.55	46,700	334,277.55	319,475.14	15,172.47	12,764,203.32	
14.....	1974	200,000	180,977.55	380,977.55	46,700	334,277.55	319,105.08	15,551.78	12,749,030.85	
15.....	1975	200,000	180,977.55	380,977.55	46,700	334,277.55	318,725.77	15,940.57	12,733,479.07	
16.....	1976	275,000	274,416.33	549,416.33	48,000	501,416.33	318,336.98	183,477.87	12,717,538.50	
17.....	1977	275,000	274,416.33	549,416.33	48,000	501,416.33	317,938.46	188,064.81	12,534,060.63	
18.....	1978	275,000	274,416.33	549,416.33	48,000	501,416.33	313,351.52	192,766.43	12,345,995.82	
19.....	1979	275,000	274,416.33	549,416.33	48,000	501,416.33	308,649.90	197,585.60	12,153,229.39	
20.....	1980	275,000	274,416.33	549,416.33	48,000	501,416.33	298,891.09	202,525.24	11,955,643.79	
21.....	1981	325,000	337,042.18	662,042.18	49,200	612,842.18	293,827.96	202,525.24	11,753,118.55	
22.....	1982	325,000	337,042.18	662,042.18	49,200	612,842.18	285,852.61	319,014.22	11,434,104.33	
23.....	1983	325,000	337,042.18	662,042.18	49,200	612,842.18	277,677.87	326,989.57	11,107,114.76	
24.....	1984	325,000	337,042.18	662,042.18	49,200	612,842.18	269,298.76	335,164.31	10,771,950.45	
25.....	1985	325,000	337,042.18	662,042.18	49,200	612,842.18	260,710.18	343,543.42	10,428,407.03	
26.....	1986	400,000	374,668.03	774,668.03	50,400	724,268.03	251,906.88	352,132.00	10,076,275.03	
27.....	1987	400,000	374,668.03	774,668.03	50,400	724,268.03	240,097.85	472,361.15	9,603,913.88	
28.....	1988	400,000	374,668.03	774,668.03	50,400	724,268.03	227,993.59	484,170.18	9,119,743.70	
29.....	1989	400,000	374,668.03	774,668.03	50,400	724,268.03	215,586.73	496,274.44	8,623,469.26	
30.....	1990	400,000	374,668.03	774,668.03	50,400	724,268.03	202,869.70	508,681.30	8,114,787.96	
31.....	1991	500,000	387,193.88	887,193.88	51,500	835,693.88	189,834.74	521,398.33	7,593,389.63	
32.....	1992	500,000	387,193.88	887,193.88	51,500	835,693.88	173,688.26	645,859.14	6,947,530.49	
33.....	1993	500,000	387,193.88	887,193.88	51,500	835,693.88	157,138.12	662,005.62	6,285,524.87	
34.....	1994	500,000	387,193.88	887,193.88	51,500	835,693.88	140,174.23	678,555.76	5,606,969.11	
35.....	1995	500,000	387,193.88	887,193.88	51,500	835,693.88	122,786.24	695,519.65	4,911,449.46	
36.....	1996	550,000	506,743.81	1,056,743.81	52,700	1,004,043.81	104,963.55	712,907.64	4,198,541.82	
37.....	1997	550,000	506,743.81	1,056,743.81	52,700	1,004,043.81	82,486.54	899,080.26	3,299,461.56	
38.....	1998	550,000	506,743.81	1,056,743.81	52,700	1,004,043.81	59,447.61	921,557.27	2,377,904.29	
39.....	1999	550,000	506,743.81	1,056,743.81	52,700	1,004,043.81	35,832.70	944,596.20	1,433,308.09	
40.....	2000	550,000	0	550,000	52,700	476,724.40	11,627.42	968,211.11	465,096.98	
41.....	2001	650,000		650,000	53,800	0	0	465,096.98	0	\$20,575.60
42.....	2002	650,000		650,000	53,800					596,200
43.....	2003	650,000		650,000	53,800					596,200
44.....	2004	650,000		650,000	53,800					596,200
45.....	2005	650,000		650,000	53,800					596,200
46.....	2006	725,000		725,000	55,100					669,900
47.....	2007	725,000		725,000	55,100					669,900
48.....	2008	725,000		725,000	55,100					669,900
49.....	2009	725,000		725,000	55,100					669,900
50.....	2010	725,000		725,000	55,100					669,900
Total.....		19,375,000	11,226,982.14	30,601,982.14	2,487,000	21,763,906.54	9,652,400.99	12,111,505.55		6,351,075.60

See footnote at end of table.

Payout schedule—Continued

Irrigation								
Project year	Fiscal year	Revenue			Annual operation and maintenance costs	Annual payment on principal		
		Water sales (\$25/AF)	Taxation	Total		From irrigation	Municipal and industrial aid to irrigation	Total
1.....	1961							\$15,319,436
2.....	1962							15,319,436
3.....	1963							15,319,436
4.....	1964							15,319,436
5.....	1965							15,319,436
6.....	1966							15,319,436
7.....	1967							15,319,436
8.....	1968							15,319,436
9.....	1969							15,319,436
10.....	1970							15,319,436
11.....	1971							15,089,651
12.....	1972	\$275,000	\$147,585	\$422,585	\$192,800	\$229,785		\$229,785
13.....	1973	275,000	147,585	422,585	192,800	229,785		229,785
14.....	1974	275,000	147,585	422,585	192,800	229,785		229,785
15.....	1975	275,000	147,585	422,585	192,800	229,785		229,785
16.....	1976	300,000	131,285	431,285	201,500	229,785		229,785
17.....	1977	300,000	131,285	431,285	201,500	229,785		229,785
18.....	1978	300,000	131,285	431,285	201,500	229,785		229,785
19.....	1979	300,000	131,285	431,285	201,500	229,785		229,785
20.....	1980	300,000	131,285	431,285	201,500	229,785		229,785
21.....	1981	312,500	126,585	439,085	209,300	229,785		229,785
22.....	1982	312,500	126,585	439,085	209,300	229,785		229,785
23.....	1983	312,500	126,585	439,085	209,300	229,785		229,785
24.....	1984	312,500	126,585	439,085	209,300	229,785		229,785
25.....	1985	312,500	126,585	439,085	209,300	229,785		229,785
26.....	1986	312,500	134,385	446,885	217,100	229,785		229,785
27.....	1987	312,500	134,385	446,885	217,100	229,785		229,785
28.....	1988	312,500	134,385	446,885	217,100	229,785		229,785
29.....	1989	312,500	134,385	446,885	217,100	229,785		229,785
30.....	1990	312,500	134,385	446,885	217,100	229,785		229,785
31.....	1991	312,500	142,285	454,785	225,000	229,785		229,785
32.....	1992	312,500	142,285	454,785	225,000	229,785		229,785
33.....	1993	312,500	142,285	454,785	225,000	229,785		229,785
34.....	1994	312,500	142,285	454,785	225,000	229,785		229,785
35.....	1995	312,500	142,285	454,785	225,000	229,785		229,785
36.....	1996	300,000	162,585	462,585	232,800	229,785		229,785
37.....	1997	300,000	162,585	462,585	232,800	229,785		229,785
38.....	1998	300,000	162,585	462,585	232,800	229,785		229,785
39.....	1999	300,000	162,585	462,585	232,800	229,785		229,785
40.....	2000	300,000	162,585	462,585	232,800	229,785		229,785
41.....	2001	300,000	183,017	483,017	240,700	242,317	\$20,575.60	250,360.60
42.....	2002	300,000	183,017	483,017	240,700	242,317	596,200	838,517
43.....	2003	300,000	183,017	483,017	240,700	242,317	596,200	838,517
44.....	2004	300,000	183,017	483,017	240,700	242,317	596,200	838,517
45.....	2005	300,000	183,017	483,017	240,700	242,317	596,200	838,517
46.....	2006	287,500	134,545	422,045	249,400	172,645	669,900	842,545
47.....	2007	287,500	134,545	422,045	249,400	172,645	669,900	842,545
48.....	2008	287,500	134,545	422,045	249,400	172,645	669,900	842,545
49.....	2009	287,500	134,545	422,045	249,400	172,645	669,900	842,545
50.....	2010	287,500	134,545.40	422,045.40	249,400	172,645.40	669,900	842,545.40
Total.....		12,000,000	5,811,360.40	17,811,360.40	8,843,000	8,968,360.40	6,351,075.60	15,319,436

¹ Computation of municipal and industrial obligation.

Period of time	Total United States expenditure for period	Municipal and industrial allocation (42.67 percent)	Cumulative municipal and industrial obligation beginning period	Interest at 2½ percent			Cumulative municipal and industrial obligation end of period
				On cumulative obligation	On current year ¹	Total interest	
Fiscal year 1956.....	0	0	0	0	0	0	0
Fiscal year 1957.....	\$4,406,000	\$1,880,040.20	0	0	\$23,500.50	\$23,500.50	\$1,903,540.70
Fiscal year 1958.....	11,412,599	4,869,756.00	\$1,903,540.70	\$17,588.52	60,871.95	108,460.47	6,881,757.17
Fiscal year 1959.....	5,592,609	3,794,476.26	6,881,757.17	172,043.93	47,430.95	219,474.88	10,895,708.31
Fiscal year 1960.....	² 1,947,260	830,895.84	10,895,708.31	272,392.71	10,386.20	282,778.91	12,009,383.06
July 1 to Oct. 1, 1960.....	² 63,032	26,895.75	12,009,383.06	75,058.64	168.10	75,226.74	12,111,505.55
Total, Oct. 1, 1960.....	26,721,500	11,402,064.05		567,083.80	142,357.70	709,441.50	12,111,505.55

¹ 2½ percent on amount for ½ year; (or, 2½ percent x 21.33 percent of expenditure for year).² Expenditure of \$2,116,260, less \$169,000 nonreimbursable for recreation.³ Recovery of GI funds. Interest computed for full 3 month period on allocation to municipal and industrial.

VERMEJO PROJECT

MAXWELL, N. MEX.

The Vermejo project was authorized by act of September 27, 1950 (64 Stat. 1072). In accordance with section 3 of that act, the President on June 22, 1951, approved the project report. The original act was amended by act of March 5, 1952 (66 Stat. 13).

The project provides for the rehabilitation of existing irrigation facilities for 7,379 acres in the Vermejo conservancy district. The water supply has been stabilized by the enlargement of reservoir No. 2, Stubblefield reservoir and reservoir No. 13. The existing Vermejo diversion dam, Vermejo Canal, Eagle Tail Canal, lateral system, and drainage system have been rehabilitated. The reconstruction of reservoir and dam No. 12, and the construction of subsurface drains are in the plans for the project, but the construction period for these items is indefinite.

The total estimated cost of the project is \$2,822,331, including \$97,863 for bond acquisition. All construction will be completed in fiscal year 1957 with the exception of reservoir and dam No. 12 and subsurface drains.

The tentative allocation of estimated total project costs:

Reimbursable:	
Irrigation.....	\$2, 107, 943
Subtotal—Reimbursable.....	2, 107, 943
Nonreimbursable:	
Irrigation.....	461, 388
Flood control.....	55, 000
Fish and wildlife.....	198, 000
Subtotal—Nonreimbursable.....	714, 388
Total.....	2, 822, 331

The project is operated by the water users.

CONTRACTS

1952, August 7: Contract I78r-458 with Vermejo conservancy district for \$2,010,080.

1954, August 31: Contract I78r-458 with Vermejo conservancy district for \$97,863.33.

Payout schedule.—The contract between United States and the Vermejo conservancy district, dated August 7, 1952, as amended by contract dated August 31, 1954, provides that \$2,107,943 will be paid in variable payments, using \$27,860 as a base charge. Annual installments shall not be more than 175 percent of the base charge and not less than 25 percent of the base charge. Payments will commence in 1963.

W. C. AUSTIN PROJECT

ALTUS, OKLA.

The construction of the W. C. Austin project in Jackson, Greer, and Kiowa Counties of Oklahoma was authorized by the Rivers and Harbors Act of June 28, 1938 (52 Stat. 1215, 1219).

The project was developed to furnish water to 47,809 acres of land and to furnish water for the city of Altus. Project features include the Altus Dam and Reservoir with canal, lateral, and drainage systems.

The total completed construction cost of the W. C. Austin project as of June 30, 1957, amounted to \$12,246,811. The tentative cost and repayment allocations are as follows:

Total project construction cost.....	\$12, 246, 811
Operation and maintenance charges funded..	438, 697

Total cost.....	12, 685, 508
-----------------	--------------

Reimbursable costs:

Irrigation (repayment contract).....	2, 182, 188
Irrigation (contributions).....	17, 271
Municipal water.....	1, 080, 000

Subtotal.....	3, 279, 459
---------------	-------------

Nonreimbursable costs:

Flood control.....	1, 130, 000
Irrigation.....	8, 276, 049

Subtotal.....	9, 406, 049
---------------	-------------

Total allocated.....	12, 685, 508
----------------------	--------------

The W. C. Austin project was operated by the Bureau of Reclamation until September 30, 1952, at which time the Lugert-Altus irrigation district

assumed responsibility for the operation and maintenance of the project, with the exception of the storage facilities.

Repayment contract.—The repayment contract was signed on January 12, 1942, with the Lugert-Altus irrigation district in the amount of \$3,080,000, to be repaid in 40 installments. This sum includes a contract (No. 11r-1372) in the amount of \$1,080,000 with the city of Altus covering a municipal water supply and which is underwritten by the irrigation district. The appropriation act of July 12, 1943 (57 Stat. 451), provided that, of the total construction cost of all features of the project, not to exceed \$3,080,000 shall be reimbursable under the provisions of Reclamation law.

The cost of funded operation and maintenance, in the amount of \$182,188, performed during calendar year 1950, was added to the original repayment contract, bringing the total amount to \$3,262,188.

CONTRACT

1942, January 2: Contract 12r-1375 with Lugert-Altus irrigation district for \$3,262,188 including funded operation and maintenance costs and a contract for \$1,080,000 with the city of Altus.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$3, 262, 188
Total matured charges.....	572, 523
Total matured charges repaid.....	572, 523
Total matured charges unpaid.....	0

Construction repayment history—Lugert-Altus irrigation district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			Cumulative total
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	
1951	\$2, 200, 000	\$62, 000	-----	\$62, 000	\$62, 000	-----	\$62, 000	\$62, 000
1952	2, 182, 854	77, 000	-----	77, 000	77, 000	-----	77, 000	139, 000
1953	2, 182, 188	77, 000	-----	77, 000	77, 000	-----	77, 000	216, 000
1954	2, 182, 188	77, 000	-----	77, 000	77, 000	-----	77, 000	293, 000
1955	2, 182, 188	76, 513	-----	76, 513	76, 513	-----	76, 513	369, 513
1956	2, 182, 188	42, 505	-----	42, 505	42, 505	-----	42, 505	412, 018
1957	2, 182, 188	42, 505	-----	42, 505	42, 505	-----	42, 505	454, 523
Total	-----	454, 523	-----	454, 523	454, 523	-----	454, 523	-----
Collected	-----	-----	-----	454, 523	-----	-----	-----	-----
Uncollected	-----	-----	-----	0	-----	-----	-----	-----

Construction repayment history—city of Altus

Fiscal year	Total obligation of water users to repay	Accruals			Collections			Cumulative total
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	
1948	\$1, 080, 000	\$5, 000	-----	\$5, 000	\$5, 000	-----	\$5, 000	\$5, 000
1949	1, 080, 000	5, 000	-----	5, 000	5, 000	-----	5, 000	10, 000
1950	1, 080, 000	5, 000	-----	5, 000	5, 000	-----	5, 000	15, 000
1951	1, 080, 000	5, 000	-----	5, 000	5, 000	-----	5, 000	20, 000
1952	1, 080, 000	5, 000	-----	5, 000	5, 000	-----	5, 000	25, 000
1953	1, 080, 000	5, 000	-----	5, 000	5, 000	-----	5, 000	30, 000
1954	1, 080, 000	5, 000	-----	5, 000	5, 000	-----	5, 000	35, 000
1955	1, 080, 000	5, 000	-----	5, 000	5, 000	-----	5, 000	40, 000
1956	1, 080, 000	39, 000	-----	39, 000	39, 000	-----	39, 000	79, 000
1957	1, 080, 000	39, 000	-----	39, 000	39, 000	-----	39, 000	118, 000
Total	-----	118, 000	-----	118, 000	118, 000	-----	118, 000	-----
Collected	-----	-----	-----	118, 000	-----	-----	-----	-----
Uncollected	-----	-----	-----	0	-----	-----	-----	-----

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1951	\$223, 905	\$223, 905
1952	175, 000	175, 000
1953	0	0
1954	2, 970	2, 970
1955	5, 960	5, 960
1956	4, 878	4, 878
1957	6, 290	6, 290
Total	419, 003	419, 003

W. C. Austin project—Payout study

Fiscal year	Irrigation			Municipal water supply					
	Net revenues from irrigation water users	Irrigation plant in service at end of year	Interest free balance to be repaid	Net revenues from water for municipal use	Repayment components of net municipal water revenues			Investment repayment	
					Interest	Principal	Surplus	Municipal water plant ⁶	Balance to be repaid
1948.....		\$8, 974, 880	\$2, 200, 000	\$5, 000	0	0	0	\$1, 080, 000	\$1, 075, 000
1949.....		9, 762, 767	2, 200, 000	5, 000	0	0	0	1, 080, 000	1, 070, 000
1950.....		10, 214, 373	2, 200, 000	5, 000	0	0	0	1, 080, 000	1, 065, 000
1951.....	\$62, 000	10, 311, 325	¹ 2, 120, 854	5, 000	0	0	0	1, 080, 000	1, 060, 000
1952.....	77, 000	10, 426, 598	2, 043, 854	5, 000	0	0	0	1, 080, 000	1, 055, 000
1953.....	77, 000	10, 477, 036	² 1, 966, 188	5, 000	0	0	0	1, 080, 000	1, 050, 000
1954.....	77, 000	³ 10, 837, 308	1, 889, 188	5, 000	0	0	0	1, 080, 000	1, 045, 000
1955.....	76, 513	10, 836, 495	1, 812, 675	5, 000	0	0	0	1, 080, 000	1, 040, 000
1956.....	42, 505	⁴ 10, 476, 165	1, 770, 170	39, 000	0	0	0	1, 080, 000	1, 001, 000
1957.....	42, 505	⁵ 10, 036, 810	1, 727, 665	39, 000	0	0	0	1, 080, 000	962, 000
1958.....	42, 505	10, 036, 810	1, 685, 160	39, 000	0	0	0	1, 080, 000	923, 000
1959.....	42, 505	10, 036, 810	1, 642, 655	39, 000	0	0	0	1, 080, 000	884, 000
1960.....	42, 505	10, 036, 810	1, 600, 150	39, 000	0	0	0	1, 080, 000	845, 000
1961.....	42, 505	10, 036, 810	1, 557, 645	39, 000	0	0	0	1, 080, 000	806, 000
1962.....	42, 505	10, 036, 810	1, 515, 140	39, 000	0	0	0	1, 080, 000	767, 000
1963.....	42, 505	10, 036, 810	1, 472, 635	39, 000	0	0	0	1, 080, 000	728, 000
1964.....	42, 505	10, 036, 810	1, 430, 130	39, 000	0	0	0	1, 080, 000	689, 000
1965.....	42, 505	10, 036, 810	1, 387, 625	39, 000	0	0	0	1, 080, 000	650, 000
1966.....	42, 505	10, 036, 810	1, 345, 120	39, 000	0	0	0	1, 080, 000	611, 000
1967.....	42, 505	10, 036, 810	1, 302, 615	39, 000	0	0	0	1, 080, 000	572, 000
1968.....	42, 505	10, 036, 810	1, 260, 110	39, 000	0	0	0	1, 080, 000	533, 000
1969.....	42, 505	10, 036, 810	1, 217, 605	39, 000	0	0	0	1, 080, 000	494, 000
1970.....	50, 305	10, 036, 810	1, 167, 300	31, 200	0	0	0	1, 080, 000	462, 800
1971.....	50, 305	10, 036, 810	1, 116, 995	31, 200	0	0	0	1, 080, 000	431, 600
1972.....	50, 305	10, 036, 810	1, 066, 690	31, 200	0	0	0	1, 080, 000	400, 400
1973.....	50, 305	10, 036, 810	1, 016, 385	31, 200	0	0	0	1, 080, 000	369, 200
1974.....	50, 305	10, 036, 810	966, 080	31, 200	0	0	0	1, 080, 000	338, 000
1975.....	55, 505	10, 036, 810	910, 575	26, 000	0	0	0	1, 080, 000	312, 000
1976.....	55, 505	10, 036, 810	855, 070	26, 000	0	0	0	1, 080, 000	286, 000
1977.....	55, 505	10, 036, 810	799, 565	26, 000	0	0	0	1, 080, 000	260, 000
1978.....	55, 505	10, 036, 810	744, 060	26, 000	0	0	0	1, 080, 000	234, 000
1979.....	55, 505	10, 036, 810	688, 555	26, 000	0	0	0	1, 080, 000	208, 000
1980.....	55, 505	10, 036, 810	633, 050	26, 000	0	0	0	1, 080, 000	182, 000
1981.....	55, 505	10, 036, 810	577, 545	26, 000	0	0	0	1, 080, 000	156, 000
1982.....	55, 505	10, 036, 810	522, 040	26, 000	0	0	0	1, 080, 000	130, 000
1983.....	55, 505	10, 036, 810	466, 535	26, 000	0	0	0	1, 080, 000	104, 000
1984.....	55, 505	10, 036, 810	411, 030	26, 000	0	0	0	1, 080, 000	78, 000
1985.....	55, 505	10, 036, 810	355, 525	26, 000	0	0	0	1, 080, 000	52, 000
1986.....	55, 505	10, 036, 810	300, 020	26, 000	0	0	0	1, 080, 000	26, 000
1987.....	55, 505	10, 036, 810	244, 515	26, 000	0	0	0	1, 080, 000	0
1988.....	81, 505	10, 036, 810	163, 010						
1989.....	81, 505	10, 036, 810	81, 505						
1990.....	81, 505	10, 036, 810	0						

¹ Includes adjustment decrease of \$17,146 to reflect actual funded operation and maintenance.² Includes adjustment decrease of \$666 to finally adjust funded operation and maintenance.³ Includes adjustment increase to record nonproject costs of \$360,070 court claims.⁴ Includes adjustment decrease to remove nonproject costs of \$360,070, court claims.⁵ Adjusted to remove funded operation and maintenance charges.⁶ Allocation of cost to be transferred to plant in service for irrigation and municipal water has not been determined.

WASHITA BASIN PROJECT

OKLAHOMA

The Washita Basin project was authorized by act of February 25, 1956 (70 Stat. 28).

The project is located in southwestern Oklahoma in Caddo, Grady, Custer, and Beckham Counties. The proposed project is divided into the Fort Cobb division and the Foss division. Facilities of the Fort Cobb division include a multiple-purpose dam and reservoir on Pond (Cobb) Creek, a pipeline system with sufficient capacity to furnish municipal and industrial water amounting to 7,215 acre-feet annually to the various communities in the area, and irrigation facilities to serve 9,000 acres. Facilities of the Foss division include a multiple-purpose dam and reservoir on the Washita River, a pipeline system with sufficient capacity to furnish municipal and industrial water amounting to 6,326 acre-feet annually to the various communities in the area, and irrigation facilities to serve 16,700 acres. The reservoirs, in addition to the conservation of presently unused water for municipal and industrial and irrigation use, will provide flood control, fish and wildlife and recreational benefits.

The total estimated cost of the project is \$40,600,000. The first construction funds were appropriated for fiscal year 1957, during which

year repayment contracts will be executed, and the initial prime construction contract will be awarded.

The tentative allocation of estimated total project costs:

Reimbursable:	
Irrigation.....	\$9,998,000
Municipal and industrial water.....	13,797,000
Subtotal—reimbursable.....	<u>23,795,000</u>
Nonreimbursable:	
Flood control.....	15,417,000
Fish and wildlife.....	839,000
Recreation.....	549,000
Subtotal—nonreimbursable.....	<u>16,805,000</u>
Total.....	<u>40,600,000</u>
Anticipated repayment of reimbursable costs:	
By irrigation water users.....	6,088,500
By municipal and industrial water users..	17,706,500
Total.....	<u>23,795,000</u>

Repayment contracts.—Tentative plans provide that repayment contracts will be negotiated with master conservancy districts for repayment of all reimbursable costs.

WEBER BASIN PROJECT

OGDEN, UTAH

The construction of the Weber Basin project was authorized by act of Congress on August 29, 1949 (63 Stat. 677).

The project will provide water to 51,210 acres of new land, a supplemental supply to 24,400 acres, and supplement the municipal and industrial water supply for about 25 cities and communities in Davis and Weber Counties located in north-central Utah. The project features include five storage reservoirs, two hydro powerplants for irrigation pumping, two diversion dams, two aqueducts totaling 27 miles in length, and 70 miles of main canals. About 200 miles of drains will be constructed to reclaim 29,000 acres of waterlogged land and improve 19,000 acres of irrigated land.

The total cost of constructing the above project facilities is estimated to be \$70,523,000, with a reimbursable cost of \$57,832,000. Construction was initiated in December 1952.

Construction costs are allocated to flood control on a nonreimbursable basis in accordance with the Flood Control Act. Costs allocated to recreation are nonreimbursable in accordance with the authorizing act. In accordance with the President's letter of August 30, 1949, the incremental cost of facilities needed to preserve fish and wildlife values in the areas, consistent with the public law, will also be nonreimbursable.

During the construction of project facilities, the operation and maintenance of these features will be by the United States.

Repayment contract.—A repayment contract between the United States and the Weber Basin water conservancy district covering the reimbursable project costs with a maximum obligation of \$57,694,000 was executed on December 12, 1952. The contract provides for a repayment period of 60 years with the irrigation water users to have a development period of not to exceed 10 years and

an optional variable repayment plan, and the municipal water users will pay 2 percent interest on cost allocated to municipal water. The district will make annual payments based on development unit notices issued as project facilities are completed and water made available. Each development unit will have apportioned to it an appropriate part of the total construction obligation.

CONTRACT

1952, December 12: No. 14-06-400-33 contract with the Weber Basin water conservancy district. The district to repay the reimbursable project costs not to exceed \$57,694,000 with each development unit within the district having a repayment period of 60 years.

The allocation and repayment of costs:

Total estimated project cost.....	\$70, 523, 000
Allocation of reimbursable costs:	
Irrigation.....	41, 190, 000
Municipal water.....	16, 642, 000
Subtotal.....	57, 832, 000
Nonreimbursable costs:	
Flood control.....	7, 393, 000
Recreation.....	3, 568, 000
Fish and wildlife.....	1, 730, 000
Subtotal.....	12, 691, 000
Total.....	70, 523, 000
Repayment of reimbursable costs for irrigation plant investment:	
From irrigation water users.....	27, 105, 000
From municipal water users.....	12, 355, 000
From sale of surplus energy.....	1, 730, 000
Subtotal.....	41, 190, 000
For municipal water plant investment: from municipal water users.....	16, 642, 000
Total.....	57, 832, 000

WEBER RIVER PROJECT

OGDEN, UTAH

The Weber River project (formerly First division of the Salt Lake Basin project) in Summit, Morgan, Wasatch, Weber, and Davis Counties, Utah, was approved by the President on January 8, 1927, under the terms of section 4 of the act of June 25, 1910, and subsection B, section 4, act of December 5, 1924 (43 Stat., 701).

The project was developed to furnish a supplemental water supply to about 80,000 acres of land. The project consists of the Echo Dam and Reservoir and the Weber Provo diversion canal.

The total actual cost of constructing the Weber River project features was \$2,724,487. The entire amount, together with interest and penalties funded, less revenues and contributions, is repayable under the terms of the repayment contract with the Weber River Water Users Association, by which the project is operated and maintained.

CONTRACTS

1926, December 16: Symbol Ilr-220, contract with Weber River Water Users Association. Association assumed repayment obligation not to exceed \$3 million in 20 equal annual installments.

1938, December 20: Symbol Ilr-220, supplemental contract Weber River Water Users Association.

314

Association to repay remaining repayment obligation in 30 equal annual payments.

The summary of status of the Weber River Water Users Association repayment contract:

Total value of contracted repayment.....	\$2,685,872
Total matured charges.....	1,892,136
Total matured charges repaid.....	1,892,136
Total matured charges unpaid.....	0

The allocation and repayment of costs:

Total project cost.....	\$2,724,487
Allocation of reimbursable costs: Irrigation..	2,724,487

Repayment of reimbursable costs:

From irrigation water users.....	2,724,487
Interest and penalties funded.....	5,897
Operation and maintenance funded.....	1,398

Subtotal.....	2,731,782
---------------	-----------

Less:

Revenues.....	1,154
Contributions.....	44,757

Subtotal.....	45,911
---------------	--------

Total repayment obligation.....	2,685,871
---------------------------------	-----------

Construction repayment history

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1928	\$3,000,000							
1929	3,000,000							
1930	3,000,000							
1931	3,000,000							
1932	3,000,000	(2)						
1933	3,004,871	(2)						
1934	3,004,871	(2)						
1935	¹ 2,883,946	(2)						
1936	2,875,695	(2)						
1937	2,875,872	² \$71,749		\$71,749	\$71,749		\$71,749	\$71,749
1938	³ 2,685,872	143,499		143,499	143,499		143,499	215,248
1939	2,685,872	89,415		89,415	89,415		89,415	304,663
1940	2,685,872	88,193		88,193	88,193		88,193	392,856
1941	2,685,872	88,193		88,193	88,193		88,193	481,049
1942	2,685,872	88,193		88,193	88,193		88,193	569,242
1943	2,685,872	88,193		88,193	88,193		88,193	657,435
1944	2,685,872	88,193		88,193	88,193		88,193	745,628
1945	2,685,872	88,193		88,193	88,193		88,193	833,821
1946	2,685,872	88,193		88,193	88,193		88,193	922,014
1947	2,685,872	88,193		88,193	88,193		88,193	1,010,207
1948	2,685,872	88,193		88,193	88,193		88,193	1,098,400
1949	2,685,872	88,193		88,193	88,193		88,193	1,186,593
1950	2,685,872	88,193		88,193	88,193		88,193	1,274,786
1951	2,685,872	88,193		88,193	88,193		88,193	1,362,979
1952	2,685,872	88,192		88,192	88,192		88,192	1,451,171
1953	2,685,872	88,193		88,193	88,193		88,193	1,539,364
1954	2,685,872	88,193		88,193	88,193		88,193	1,627,557
1955	2,685,872	88,193		88,193	88,193		88,193	1,715,750
1956	2,685,872	88,193		88,193	88,193		88,193	1,803,943
1957	2,685,872	88,193		88,193	88,193		88,193	1,892,136
Total		1,892,136		1,892,136	1,892,136		1,892,136	
Collected				1,892,136				
Uncollected				0				

¹ Obligation reduced to actual cost.² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar

years 1932, \$148,158; 1933, \$143,853; 1934, \$143,853; 1935, \$143,853; 1936, \$71,926.

³ \$190,000 of cost and obligation transferred to Provo River Water Users' Association.

WILLISTON PROJECT

WILLISTON, N. DAK.

The Williston project was authorized for construction by the Bureau of Reclamation in 1906 and water was available for irrigation in 1908. Pumps installed on a barge in the Missouri River brought water into a settling basin, and thence into the canal system where pumping was necessary. Individual water-right contracts were entered into with the water users.

By 1914 most of the water-right applicants were in default. The obligations were assumed in 1919 by the Williston irrigation district, which likewise failed to meet the payments due. The project never became fully settled and the landowners were not particularly interested in irrigation after it became available.

In 1924 the Committee of Special Advisers on Reclamation (Fact Finders Committee) found that the history and prospects of the project did not justify its further operation by the Bureau of Reclamation, and recommended that the project be appraised and sold, and the losses incurred charged to the Reclamation fund.

The act of May 26, 1926 (44 Stat. 653), authorized the cancellation of all water-right charges and the release of all liens existing against the lands in the Williston project on account of the water-right charges. The total amount of \$409,094.69 was thus charged off in the accounts of the United States as a loss to the Reclamation fund.

YAKIMA PROJECT

YAKIMA, WASH.

The Yakima project, located in south-central Washington in the drainage basin of the Yakima River and its tributaries, supplies irrigation water to approximately 450,000 acres. In addition to water supply and irrigation works, the project facilities include a 12,000-kilowatt powerplant. The ultimate development will irrigate approximately 465,000 acres and include 2 hydroelectric generating plants, totaling 23,250-kilowatt capacity. The project consists of 7 divisions: Storage, Kittitas, Tieton, Sunnyside, Roza, Kennewick, and Wapato. The latter is operated by the Bureau of Indian Affairs, but receives its water supply from the Yakima project. An additional 100,000 acres are irrigated under water supply contracts with irrigation districts and individuals. Initial construction under the Reclamation Act of 1902 (32 Stat. 388) was authorized on December 12, 1905, when the Secretary of the Interior allocated \$1,000,000 for the Sunnyside division, and \$750,000 for the Tieton division. The Board of Army Engineers report pursuant to the act of June 25, 1910 (36 Stat. 835), recommended that Sunnyside and Tieton divisions be continued as primary projects, and Benton, Kittitas, and Wapato divisions be developed into a general system of storage reservoirs for the Yakima Valley.

The recommendations of the board were approved by the President on January 5, 1911. The investment to date for Government-constructed facilities on the Yakima project totals \$57,178,835.

KENNEWICK DIVISION

The Kennewick division is a combined power and irrigation development which was authorized under act of June 12, 1948 (61 Stat. 382). It is the last unit of the Yakima project to be developed from the water resources of the Yakima River.

The authorization provides for construction of the Chandler power canal and powerplant (12,000-kilowatt capacity); a pumping plant and irrigation facilities to serve approximately 21,000 acres; and improvements for fish and wildlife. The total cost estimate of \$14,978,379 includes construction costs of \$13,911,454, settlers assistance \$13,400, deferred area land classification \$5,404, allocated storage costs of \$506,057, Prosser powerplant obligations of \$65,389, and Prosser costs integrated with Kennewick of \$476,675. Cost allocations were made as follows:

Reimbursable costs:	
Irrigation.....	\$9, 307, 038
Power.....	¹ 4, 441, 407
Subtotal.....	13, 748, 445
Nonreimbursable costs:	
Fish and wildlife.....	1, 229, 934
Total.....	14, 978, 379

¹ Includes \$3,964,732 Kennewick and \$476,675 Prosser integrated costs.

Repayment contracts.—Under an amendatory repayment contract dated July 22, 1953, the Kennewick irrigation district contracted to repay construction costs totaling \$4,809,700. Previously irrigated lands (4,645 acres) will pay \$1,163,300, and new lands (14,526 acres) will pay \$3,646,400. The amount allocated to the old lands is scheduled for repayment over 66 years, whereas the new lands will be allowed a 10-year development period, followed by a repayment period of 56 years.

Net revenues derived from the sale of power, which is to be marketed through the Bonneville Power Administration, are scheduled to repay, over a period of 66 years, the power investment plus over \$4,000,000 of the investment in irrigation facilities.

CONTRACTS

- 1921, April 7: Contract with Kennewick irrigation district provided for the purchase of 150,000 acre-feet of stored and natural flow water; construction of Prosser powerplant (3,000 kilowatts), and rehabilitation of the Highlands (4,300 acres) irrigation system at a cost of \$1,005,000, repayable in 40 semiannual installments.
- 1930, October 11: Contract with Kennewick irrigation district provided for reconstructing the Highlands lateral, pipelines and pumping plant; constructing a powerplant on Prosser-Chandler canal with district paying operation, maintenance, and depreciation. Cost of plant to be returned from sale of surplus power.
- 1953, July 22: Amendatory contract 14-06-W-56 with the Kennewick irrigation district provides for repayment of construction costs totaling \$4,809,700 with old lands (4,645 acres) paying \$3.80 per acre for 66 years and new lands (14,526 acres) paying \$4.48 per acre for 56 years following a 10-year development period.

The Chandler powerplant began operating in February 1956, and irrigation facilities are to be in readiness to begin delivering water in 1957 on a testing basis.

During the irrigation season water flowing in the canal to the Chandler pumping and powerplant (Kennewick division) is used primarily to operate the hydraulic pumps and secondarily to generate power. During the nonirrigation season all available flows are used to produce power. Generation at the Chandler powerplant is marketed by the Bonneville Power Administration.

The development period is scheduled to begin on January 1, 1958, at which time full responsibility for operation and maintenance of the irrigation facilities is scheduled to be taken over by the Kennewick irrigation district.

The status of Kennewick division repayment on June 30, 1956, is as follows:

Total value of contracted repayment.....	\$4, 809, 700
Total matured charges.....	0
Total matured charges repaid.....	0
Total matured charges unpaid.....	0

KITTTITAS DIVISION

The Kittitas division supplies irrigation water to 56,783 acres along the upper reaches of the Yakima River in the Kittitas Valley.

In 1925 a projected irrigation system designed to deliver water to approximately 70,000 acres at an estimated cost of \$9,000,000 was found feasible for construction by the Bureau of Reclamation. Construction work started in 1925 and irrigation operations commenced in 1930. Operation and maintenance responsibility was transferred to the district in 1934 and thereafter continued under district management. The irrigation facilities include: 26 miles of main canal, 1,320 cubic feet per second capacity; Yakima River siphon, 925 cubic feet per second capacity; North Branch Canal, 36 miles long; South Branch Canal, 18 miles long; Wippel pumping plant, 50 cubic feet per second capacity; and about 329 miles of distribution laterals.

Repayment contracts.—Organized under the name of the Kittitas reclamation district in 1911, the district entered into a contract in February 1921 for 372,000 acre-feet of natural flow and storage water from the Yakima project system. This contract was amended in 1945 to reduce the water supply to 342,000 acre-feet, and the district's pro rata share for repayment of storage costs was established at \$2,223,000.

Upon request of the district the lands were reclassified in 1943, and thereafter followed an economic study and report on a repayment plan. The reanalysis resulted in an amendatory repayment contract, dated January 20, 1949, which was specifically authorized by the act of May 6, 1949 (63 Stat 62). The new contract combined the storage and irrigation works obligation in one account totaling \$9,923,058, and provided for annual payments of \$2 per acre on 53,170.1 acres and \$1.50 per acre on 3,613.1 acres, with repayment commencing in 1948. Variations in these basic annual installments are provided for under a formula which adjusts the figure in accordance with crop returns and parity ratio factors. Full repayment of the construction account in 89 years is anticipated.

The Easton diversion dam is part of the United States reserved works, along with the Yakima storage works, for which the district pays its annual pro rata share for operation and maintenance.

CONTRACTS

1921, February 16; 1930, November 1; 1940, June 4; and 1945, January 10: Contracts with Kittitas reclamation district to purchase 342,000 acre-feet of stored water. Estimated cost \$2,223,000. Payable in 80 graduated semiannual instalments.

1925, December 19; 1927, July 5; 1927, July 26; 1928, September 7; 1937, July 6; 1939, June 6; 1940, June 4: Contracts with Kittitas reclamation district for construction of irrigation system.

1949, January 20: Amendatory contract Ilr-1532 with Kittitas reclamation district placed the unpaid obligation at \$9,923,058 and provided for repayment under the normal and percentage formula adjusted by parity.

The summary of status of repayment contracts:

Total value of contracted repayment.....	\$11, 225, 652
Total matured charges.....	2, 305, 473
Total matured charges repaid.....	2, 305, 473
Total matured charges unpaid.....	0

Construction repayment history—Kittitas division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1926.....	\$9, 000, 000							
1927.....	9, 000, 000							
1928.....	9, 000, 000							
1929.....	9, 000, 000							
1930.....	9, 000, 000							
1931.....	9, 000, 000							
1932.....	9, 000, 000							
1933.....	9, 000, 000							
1934.....	9, 000, 000							
1935.....	9, 000, 000							
1936.....	9, 000, 000							
1937.....	9, 000, 000							
1938.....	9, 000, 000	\$63, 671		\$63, 671	\$63, 671		\$63, 671	\$63, 671
1939.....	9, 000, 000	72, 668		72, 668	72, 668		72, 668	136, 339
1940.....	9, 000, 000	76, 128	¹ \$19, 032	57, 096	57, 096		57, 096	193, 435
1941.....	9, 000, 000	76, 127		76, 127			0	193, 435
1942.....	9, 000, 000	76, 128		76, 128		\$76, 127	76, 127	269, 562
1943.....	9, 000, 000	76, 128		76, 128	76, 128	76, 128	152, 256	421, 818
1944.....	9, 000, 000	83, 049		83, 049	83, 049		83, 049	504, 867
1945.....	9, 000, 000	92, 600		92, 600	92, 600		92, 600	597, 467
1946.....	8, 991, 653	102, 889		102, 889	102, 889		102, 889	700, 356
1947.....	8, 991, 653	113, 178		113, 178	113, 178		113, 178	813, 534
1948.....	8, 991, 653	123, 467		123, 467				813, 534
1949.....	10, 736, 593	294, 146	² 253, 793	40, 353	163, 820		163, 820	977, 354
1950.....	11, 225, 652	148, 585	³ 489, 060	637, 645	148, 585	489, 060	637, 645	1, 614, 999
1951.....	11, 225, 652	117, 269		117, 269	117, 269		117, 269	1, 732, 268
1952.....	11, 225, 652	110, 709		110, 709	110, 709		110, 709	1, 842, 977
1953.....	11, 225, 652	142, 024		142, 024	142, 024		142, 024	1, 985, 001
1954.....	11, 225, 652	111, 582		111, 582	111, 582		111, 582	2, 096, 583
1955.....	11, 225, 652	61, 010		61, 010	61, 010		61, 010	2, 157, 593
1956.....	11, 225, 652	70, 297		70, 297	70, 297		70, 297	2, 227, 890
1957.....	11, 225, 652	77, 583		77, 583	77, 583		77, 583	2, 305, 473
Total.....		2, 089, 238	216, 235	2, 305, 473	1, 664, 158	641, 315	2, 305, 473	
Collected.....				2, 305, 473				
Uncollected.....				0				

¹ Decrease. Covers deferment of 1939 construction charges, under act of Aug. 4, 1939.

² Decrease. Payment deferred pending approval of contract Ilr-1532, dated Jan. 20, 1949.

³ Storage contract of Feb. 16, 1921, as amended by contracts of Nov. 1, 1930, June 4, 1940, and Jan. 10, 1945, included in amendatory contract Ilr-1532, dated Jan. 20, 1949.

*Operation and maintenance assessments history—
Kittitas division*

Fiscal year	Accruals	Collections
1930-----	\$19, 691	\$19, 691
1931-----	54, 295	54, 295
1932-----	67, 179	67, 179
1933-----	66, 904	66, 904
1934-----	0	0
1935-----	0	0
1936-----	0	0
1937-----	0	0
1938-----	0	0
1939-----	0	0
1940-----	0	0
1941-----	4, 254	4, 254
1942-----	2, 332	2, 332
1943-----	3, 814	3, 814
1944-----	2, 249	2, 249
1945-----	4, 770	4, 770
1946-----	4, 000	4, 000
1947-----	19, 700	19, 700
1948-----	21, 849	21, 849
1949-----	19, 776	19, 776
1950-----	20, 360	20, 360
1951-----	17, 720	17, 720
1952-----	23, 197	23, 197
1953-----	23, 605	23, 605
1954-----	21, 392	21, 392
1955-----	20, 566	20, 566
1956-----	24, 894	24, 894
1957-----	24, 895	24, 895
Total-----	467, 442	467, 442

ROZA DIVISION

The Roza division was authorized by the President on November 6, 1935. It is operated by the Bureau of Reclamation. The first delivery of water was made to 1,861 acres in 1941. Additional acreage was brought in as rapidly as irrigation facilities were completed, and water was available to the entire 72,000 acres in 1950. Payment of construction charges commenced on 9,420.9 acres in 1946, and, in 1956, a total of 72,000 acres were paying construction charges. The amount paid on the construction account as of June 30, 1956, totals \$963,782. Construction of the Roza powerplant was begun late in 1955 and is scheduled for completion in March 1958.

Repayment contracts.—The Roza division is designated as a high-line development of the Yakima project. The Yakima-Benton (later Roza) irrigation district, established April 26, 1920, contracted with the United States for 285,000 acre-feet of Yakima project water. The water supply contract was amended April 15, 1935, to 375,000 acre-feet and the repayment obligation was fixed at \$2,500,000. The district entered into a contract on December 13, 1935, for the con-

struction of irrigation facilities to serve 72,000 acres; also a 10,000-kilowatt hydroelectric powerplant to supply power for pumping and commercial use. The construction repayment obligation stipulated in the contract was \$15,000,000. The facilities constructed to date include a diversion dam, 95-mile main canal, 6 wasteways, 9 pumping plants, 70 miles of 3.4-kilovolt power transmission line, a power substation and approximately 400 miles of distribution laterals. The construction cost as of June 30, 1957, totals \$19,514,991. Construction costs exceeded the original estimate because of rising costs during and following World War II; consequently the district increased its maximum repayment obligation to \$21,000,000 under an amendatory contract, dated January 17, 1949. Subsequent economic studies and engineering studies, particularly with reference to power features, and the payment capacity of the lands, are incorporated in an "Economic Report and Repayment Plan," dated June 1949. This report provided the basis for further amending the construction repayment contract to provide for annual payments consistent with the ability of the water users to pay and consequent extension of the repayment period. The resulting amendatory contract, dated July 22, 1953, was specifically authorized by the act of June 30, 1954 (68 Stat. 359). Under the contract of July 22, 1953, the Roza irrigation district's maximum construction obligation was changed to \$19,150,000 which excludes cost of power facilities that are to be paid by power revenues.

When the Roza powerplant starts operation in 1958, summer production will be used to operate the division's pumping plants. It is anticipated that power in excess of pumping requirements will be marketed by the Bonneville Power Administration.

Repayment of an additional \$78,100 is covered by contract dated February 10, 1940, with the Terrace Heights irrigation district. It provides for construction of distribution facilities to take water from the Roza Main Canal to serve part of the district lands by gravity to replace previous arrangements under which all water had to be pumped. Total cost was \$78,100, to be repaid in fixed installments.

CONTRACTS

1935, December 13: Contract Ilr-842 with Roza irrigation district to repay construction obligation of \$15,000,000.

1940, February 10: Contract 11r-1212 with Terrace Heights irrigation district for \$78,100, to be repaid in fixed installments.

1949, January 17: Contract with Roza irrigation district raising the construction obligation to \$21,000,000.

1953, July 22: Contract 14-06-W-69 with Roza irrigation district establishing the construction obligation, including storage, at \$19,150,000. Installments based on \$1 per acre with annual increments of 20 cents until rate reached \$4.10 per acre. Normal

and percentage plus parity plan is optional. Payout will be completed in about 84 years from the year 1942.

The status of Roza division repayment on June 30, 1957, is as follows:

Total value of contracted repayment.....	\$19, 228, 100
Total matured charges.....	1, 113, 313
Total matured charges repaid.....	1, 113, 313
Total matured charges unpaid.....	0

Construction repayment history—Roza division

Fiscal year	Total obligation of water users to repay	Accrual			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1947.....	\$15, 105, 953							
1948.....	15, 138, 849	\$141, 548		\$141, 548	\$141, 548		\$141, 548	\$141, 548
1949.....	21, 159, 621	79, 195		79, 195	79, 195		79, 195	220, 743
1950.....	21, 159, 621	74, 475		74, 475	74, 475		74, 475	295, 218
1951.....	21, 078, 100	112, 680		112, 680	111, 975		111, 975	407, 193
1952.....	21, 078, 100	109, 377		109, 377	110, 082		110, 082	517, 275
1953.....	21, 078, 100	103, 998		103, 998	103, 998		103, 998	621, 273
1954.....	21, 078, 100	61, 248		61, 248	61, 248		61, 248	682, 521
1955.....	19, 228, 100	88, 958	¹ \$53, 796	¹ 142, 754	88, 958	¹ \$53, 796	¹ 142, 754	825, 275
1956.....	19, 228, 100	138, 507		138, 507	138, 507		138, 507	963, 782
1957.....	19, 228, 100	149, 531		149, 531	149, 531		149, 531	1, 113, 313
Total.....		1, 059, 517	53, 796	1, 113, 313	1, 059, 517	\$53, 796	1, 113, 313	
Collected.....				1, 113, 313				
Uncollected.....				0				

¹ Storage Contract of July 8, 1921, as amended April 15, 1935, are included in Amendatory Contract 14-06-W-69 dated July 22, 1953.

*Operation and maintenance assessments history—
Roza division*

Fiscal year	Accrual	Collections
1950.....	\$84, 470	\$84, 470
1951.....	260, 022	260, 022
1952.....	332, 233	332, 233
1953.....	369, 098	369, 098
1954.....	251, 216	251, 216
1955.....	369, 423	369, 423
1956.....	439, 066	439, 066
1957.....	430, 000	430, 000
Total.....	2, 535, 528	2, 535, 528

STORAGE DIVISION

A Government-operated division of the Yakima project, responsible for the operation and maintenance of 6 reservoirs (total capacity 1,063,800 acre-feet) and the administration of water supply contracts and distribution of water derived from the Yakima River and its tributaries. Storage and natural flow rights are vested in the United States under a withdrawal agreement, dated May 4, 1905. The rights of prior appropriations were

established by limiting agreements when the Government withdrawal agreement was entered into.

Repayment contracts.—Contracts for repayment of storage system construction costs by irrigation interests total \$3,600,134. Repayments commenced in 1915. On June 30, 1956, a total of \$2,879,832 had been paid on the construction account.

Rehabilitation and betterment.—Rehabilitation and betterment work on the Storage division, costing \$719,262, was completed in 1953. Repayment is being made over a 20-year period by means of special operation and maintenance assessments.

CONTRACTS

1914, August 1: Act provides for reimbursement to Reclamation fund for furnishing of 573 second-feet of water to Yakima Indian Reservation in amount of \$635,000.

1921, February 16, 1930, November 1: Contracts with Kittitas reclamation district to purchase 372,000 acre-feet of stored water. Estimated cost \$2,418,000, payable in 80 graduated semiannual installments.

Construction repayment history—Storage division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1915	\$635,000	\$110,000		\$110,000	\$110,000		\$110,000	\$110,000
1916	635,000	101,260		101,260	101,260		101,260	211,260
1917	664,870	100,744		100,744	100,744		100,744	312,004
1918	667,202	102,277		102,277	102,277		102,277	414,281
1919	668,202	101,223		101,223	100,523		100,523	514,804
1920	667,002	101,764		101,764	101,134	\$700	101,834	616,638
1921	¹ 2,399,382	57,613		57,613	46,513	630	47,143	663,781
1922	2,403,932	49,569		49,569	42,739	11,100	53,839	717,620
1923	2,457,232	60,282		60,282	53,552	6,830	60,382	778,002
1924	2,457,232	54,765		54,765	48,665	6,730	55,395	833,397
1925	2,459,432	63,365		63,365	57,165	6,100	63,265	896,662
1926	² 4,152,732	88,405		88,405	82,305	6,000	88,305	984,967
1927	4,153,092	81,461		81,461	81,025	6,300	87,325	1,072,292
1928	4,153,092	104,521		104,521	104,285	136	104,421	1,176,713
1929	4,153,252	103,581		103,581	103,581		103,581	1,280,294
1930	4,164,796	105,535		105,535	105,399	536	105,935	1,386,229
1931	4,901,581	107,211		107,211	105,713	136	105,849	1,492,078
1932 ³	4,919,151	100,986		100,986	80,020	1,498	81,518	1,573,596
1933 ³	4,919,151	101,373	⁴ \$466	100,907	3,246		3,246	1,576,842
1934 ³	4,923,330	3,292	⁴ 117,518	⁴ 114,226	683	2,957	3,640	1,580,482
1935 ³	4,922,793	112,356	⁴ 270	112,086	14,807	52	14,859	1,595,341
1936 ³	⁵ 7,422,523	125,340		125,340	26,961	49	27,010	1,622,351
1937 ³	7,423,111	77,279	⁴ 195,001	⁴ 117,722	27,175	877	28,052	1,650,403
1938	8,073,111	125,481		125,481	29,281	419	29,700	1,680,103
1939	8,098,956	87,584	⁴ 108,833	⁴ 21,249	17,891		17,891	1,697,994
1940 ⁶	8,098,956	107,737	⁴ 32,240	75,497	70,115		70,115	1,768,109
1941 ⁶	8,098,956	106,367		106,367	4,383	65	4,448	1,772,557
1942 ⁶	8,248,956	92,721	⁴ 48,360	44,361	23,065	⁴ 15,965	7,100	1,779,657
1943	8,248,956	124,962		124,962	87,545	32,240	119,785	1,899,442
1944	8,248,956	124,962		124,962	119,785	184	119,969	2,019,411
1945	8,504,634	142,566		142,566	90,768	14,382	105,150	2,124,561
1946	8,341,884	220,927		220,927	183,041		183,041	2,307,602
1947	8,341,884	122,361		122,361	421,696		421,696	2,729,298
1948	8,341,884	186,363		186,363	164,967		164,967	2,894,265
1949	6,607,944	120,556	⁷ 88,920	31,636	53,162		53,162	2,947,427
1950	6,100,134	89,855	⁸ 492,810	⁸ 402,955	127,272	⁸ 492,810	⁸ 365,538	2,581,889
1951	6,100,134	108,250		108,250	108,587		108,587	2,690,476
1952	6,100,134	92,604		92,604	92,041		92,041	2,782,517
1953	6,100,134	180,488		180,488	181,051		181,051	2,963,568
1954	6,100,134	127,883		127,883	127,883		127,883	3,091,451
1955	⁹ 3,600,134	61,216	⁹ 333,333	⁹ 272,117	61,216	⁹ 333,333	⁹ 272,117	2,819,334
1956	3,600,134	60,498		60,498	60,498		60,498	2,879,832
1957	3,600,134	22,363		22,363	22,363		22,363	2,902,195
Total Collected		4,319,946	⁸ 1,417,751	2,902,195	3,646,382	⁸ 744,187	2,902,195	
Uncollected				0				

¹ Increase in obligation due to 1921 agreement with Office of Indian Affairs.² Increase in obligation due to 1921 contract with Kittitas reclamation district.³ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years, 1931, \$22,265; 1932, \$100,640; 1933, \$97,636; 1934, \$97,636; 1935, \$97,536; 1936, \$48,750.⁴ Decrease. Decreases cover amounts deferred under relief acts.⁵ Increase in obligation due to 1935 contract with Roza irrigation district.⁶ Adjustment under act of Feb. 24, 1938. Deferred under act of Aug. 4, 1939, construction charges for calendar years 1939, \$29,640; 1940, \$44,640; 1941, \$29,640.⁷ Decrease. Kittitas amendatory contract of June 20, 1949, includes the Storage contract of Feb. 16, 1921, as amended.⁸ Decrease.⁹ Decrease. Roza amendatory contract of Jan. 17, 1949 includes the storage obligation originally covered by contract of July 8, 1921 as amended.

1921, March 31: Agreement with Office of Indian Affairs to purchase 250,000 acre-feet of stored water for Yakima Indian Reservation. Estimated cost \$1,625,000. By act of February 24, 1938, repayment period extended to 40 years.

1921, July 8, and 1935, April 15: Contracts with Roza irrigation district to purchase 375,000 acre-feet of stored water. Estimated cost \$2,500,000. Payable in 80 graduated semiannual installments.

1931, July 11: Warren Act contract Ilr-15 with Snipes Mountain irrigation district for sale of water. Obligation of \$28,740 was based on estimated cost of \$10 per acre-foot, subject to adjustment.

1936, September 3: Agreement with Office of Indian Affairs to purchase 100,000 acre-feet of stored water. Estimated cost \$800,000, payable in 40 equal annual installments.

1945, January 5: Contract Ilr-1439 with Granger irrigation district for sale of water. Repayment based on estimated cost of \$7.50 per acre-foot for 20 years, subject to adjustment.

1945, January 22: Contract Ilr-1430 with Outlook irrigation district for sale of water at \$7.50 per acre-foot for 20 years, subject to adjustment.

In addition, there are contracts to purchase stored water with 34 districts, companies, and individuals.

The status of Storage division repayment on June 30, 1957, is as follows:

Total value of contracted repayment.....	\$3, 600, 134
Total matured charges.....	2, 902, 195
Total matured charges repaid.....	2, 902, 195
Total matured charges unpaid.....	0

The status of rehabilitation and betterment (Storage division) repayment on June 30, 1957, is as follows:

Total value of contracted repayment.....	\$719, 262
Total matured charges.....	213, 333
Total matured charges repaid.....	213, 333
Total matured charges unpaid.....	0

Rehabilitation repayment history—Storage division

Fiscal year	Total obligation of water users to repay	Accrual			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1953.....	\$725, 000	\$51, 381	-----	\$51, 381	\$51, 381	-----	\$51, 381	\$51, 381
1954.....	¹ 719, 262	57, 027	-----	57, 027	57, 027	-----	57, 027	108, 408
1955.....	719, 262	36, 250	-----	36, 250	36, 250	-----	36, 250	144, 658
1956.....	719, 262	34, 337	-----	34, 337	34, 337	-----	34, 337	178, 995
1957.....	719, 262	34, 338	-----	34, 338	34, 338	-----	34, 338	213, 233
Total.....	-----	213, 333	-----	213, 333	213, 333	-----	213, 333	-----
Collected.....	-----	-----	-----	213, 333	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	0	-----	-----	-----	-----

¹ Decrease.

Operation and maintenance assessments history—Storage division

Operation and maintenance assessments history—Storage division—Continued

Fiscal year	Accruals	Collections
1915.....	\$131	\$131
1916.....	132	132
1917.....	172	164
1918.....	21, 287	21, 277
1919.....	10, 209	10, 201
1920.....	11, 110	11, 136
1921.....	21, 487	21, 471
1922.....	18, 604	12, 489
1923.....	26, 018	32, 149
1924.....	20, 471	13, 404
1925.....	18, 344	20, 578
1926.....	19, 254	18, 316
1927.....	25, 568	19, 347
1928.....	24, 474	36, 465
1929.....	27, 536	13, 561
1930.....	37, 544	51, 491
1931.....	31, 447	31, 439
1932.....	41, 632	13, 391
1933.....	15, 645	36, 515
1934.....	22, 466	20, 990
1935.....	37, 143	31, 365
1936.....	30, 165	30, 479
1937.....	26, 740	28, 584

Fiscal Year	Accruals	Collections
1938.....	\$27, 711	\$37, 798
1939.....	28, 206	30, 534
1940.....	25, 645	25, 646
1941.....	29, 385	18, 206
1942.....	17, 097	17, 105
1943.....	44, 437	29, 336
1944.....	21, 561	37, 998
1945.....	31, 876	31, 075
1946.....	33, 708	23, 635
1947.....	13, 627	22, 455
1948.....	80, 289	65, 533
1949.....	54, 564	18, 458
1950.....	53, 007	65, 094
1951.....	34, 643	85, 387
1952.....	35, 092	35, 092
1953.....	33, 473	20, 062
1954.....	37, 216	50, 627
1955.....	35, 196	35, 196
1956.....	37, 694	37, 694
1957.....	42, 532	42, 532
Total.....	1, 204, 538	1, 204, 538

SUNNYSIDE DIVISION

This division was authorized for construction under the Reclamation Act on December 12, 1905. Authorization included provisions for the purchase of an irrigation system built by the Washington Irrigation Co. serving approximately 45,000 acres. Subsequent development by the Government enlarged the system to irrigate 103,570 acres. The major unit of this division is the Sunnyside Valley irrigation district, totaling 76,141 irrigable acres, and 27,429 acres are included in minor units listed as follows:

	<i>Acres</i>
Granger irrigation district.....	1, 600
Outlook irrigation district.....	4, 741
Grandview irrigation district.....	3, 941
Snipes Mountain irrigation district.....	1, 915
Prosser irrigation district.....	2, 155
Sunnyside Valley irrigation district.....	4, 630
Zillah irrigation district.....	106
Small operators.....	8, 341

The first six irrigation districts listed above are under contract with the United States for repayment of construction accounts.

On March 1, 1945, management of the Sunnyside division was transferred to a board of control, made up of 12 members representing the irrigation districts and operating units.

On June 19, 1952, the Sunnyside Valley irrigation district made final payment of \$21,298.91, thereby paying off its construction obligation to the Government totaling \$2,270,050.23.

A contract debt of \$4,184,933 has been assumed by water users for construction of the Sunnyside division. Repayments began in 1908. On June 30, 1957, \$3,920,291 had been paid. The unpaid balance of \$264,642 represents amounts payable under construction repayment contracts with 4 small irrigation districts.

Rehabilitation and betterment.—Rehabilitation and betterment of discharge lines, siphons, and Spring Creek pumping plant for the Prosser irrigation district has been completed at a cost of \$98,036. Repayment is covered by a \$100,000 provision in the district's contract, and is combined with the district's regular construction obligation.

PUBLIC NOTICES AND CONTRACTS

- 1908, November 18: Public notice. Construction charge \$52 per acre, payable in 10 equal annual installments.
- 1914, October 16: Warren Act contract Ilr-458 with Sunnyside irrigation district for \$240,760 as share of project works plus additional costs, repayable in fixed amounts. Payment secured from the district by issuance and retirement of bonds deposited with the United States.
- 1914, November 16; 1917, April 4; 1926, June 11; and 1932, September 26: Contract Ilr-15 with Snipes Mountain irrigation district for construction of pumping plant and for water supply, repayment in 40 years from 1916.
- 1914, November 23; 1916, August 1; 1919, July 1; 1932, December 20: Contract I23r-15 with Outlook irrigation district for construction of pumping plant and for water supply, repayment in 40 years from 1917.
- 1916, August 4; 1927, May 2; 1932, July 5: Contract Ilr-160 with Grandview irrigation district for construction of pumping plant and for furnishing water supply, repayment in 40 years from 1917.
- 1917, December 1; 1919, February 27; 1922, November 7; and 1932, January 1: Contracts with Prosser irrigation district for construction of pumping plant and for water supply, repayment in 40 years from 1919.
- 1918, May 6: Public notice. Construction charge \$52 and \$75 per acre, payable in 20 graduated annual installments.
- 1922, September 29: Contract Ilr-464 with Zillah irrigation district providing water right for 108.12 acres at cost of \$6,836.50, repayable under fixed, graduated annual installments.
- 1922, November 20, and 1932, June 7: Contracts Ilr-455 with Granger irrigation district for construction of pumping plant and for furnishing water supply, repayment in 40 years from 1924.
- 1942, December 28 and 1949, August 2: Contract Ilr-1395 with Sunnyside irrigation district. Assessments determined under normal and percentage procedure of 1939 act, including ceiling of 175 percent of base rate.
- 1949, November 25: Amendatory contract Ilr-1551 with Prosser irrigation district for rehabilitation and betterment of district's canal and distribution system plus previous unpaid obligation. Base rate is \$6,770 annually. Reaffirms operation under Sunnyside Board of Control.

The status of Sunnyside division repayment on June 30, 1957, is as follows:

Total value of repayment contracts.....	\$4, 184, 933
Total matured charges.....	3, 920, 291
Total matured charges paid.....	3, 920, 291
Total matured charges unpaid.....	0

Construction repayment history—Sunnyside division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1908		\$13, 176		\$13, 176	\$13, 176		\$13, 176	\$13, 176
1909		49, 904		49, 904	49, 281	\$623	49, 904	63, 080
1910		159, 962		159, 962	92, 315		92, 315	155, 395
1911		167, 093		167, 093	89, 528		89, 528	244, 923
1912		106, 711		106, 711			142, 804	387, 727
1913		186, 655		186, 655			118, 634	506, 361
1914		132, 823		132, 823			84, 542	590, 903
1915	\$1, 625, 123			¹ 122, 918			42, 375	633, 278
1916	1, 733, 376			15, 646			45, 951	679, 229
1917	3, 057, 728			49, 115			45, 760	724, 989
1918	3, 211, 954			72, 465			84, 856	809, 845
1919	3, 481, 892			83, 676	1, 537, 012		83, 273	893, 118
1920	3, 755, 314	1, 092, 688		90, 416			97, 177	990, 295
1921	3, 753, 482			141, 358			106, 730	1, 097, 025
1922	3, 736, 590			147, 215			129, 153	1, 226, 178
1923	3, 757, 861			161, 138			139, 250	1, 365, 428
1924	3, 776, 734			171, 882			181, 921	1, 547, 349
1925	4, 023, 331			169, 336			59, 409	1, 606, 758
1926	4, 033, 092			113, 359			175, 177	1, 781, 935
1927	4, 034, 471	142, 265	¹ \$1, 401	140, 864	152, 008	23, 493	175, 501	1, 957, 436
1928	4, 032, 897	147, 315	¹ 5, 654	141, 661	73, 316	71, 353	144, 669	2, 102, 105
1929	4, 033, 462	155, 339	¹ 696	154, 643	65, 981	31, 804	97, 785	2, 199, 890
1930	4, 045, 117	165, 077	177	165, 254	137, 718	71, 845	209, 563	2, 409, 453
1931	4, 047, 995	168, 220		168, 220	85, 437	83, 093	168, 530	2, 577, 983
1932 ²	4, 073, 412	142, 828	¹ 2, 641	140, 187	48, 856	7, 840	56, 696	2, 634, 679
1933 ²	4, 117, 857	68, 643	¹ 153, 450	¹ 84, 807	10, 502	2, 674	13, 176	2, 647, 855
1934 ²	4, 138, 507	19, 084	¹ 90, 294	¹ 71, 210	18, 180	¹ 3, 818	14, 362	2, 662, 217
1935 ²	4, 144, 572	22, 989	¹ 53	22, 936	16, 172	31	16, 203	2, 678, 420
1936 ²	4, 141, 523	11, 000	¹ 1, 593	9, 407	15, 006	¹ 405	14, 601	2, 693, 021
1937 ²	4, 137, 668	74, 025		74, 025	39, 832	2, 930	42, 762	2, 735, 783
1938 ³	4, 138, 781	108, 405		108, 405	38, 030	39, 670	77, 700	2, 813, 483
1939 ³	4, 139, 000	143, 785		143, 785	49, 763	53, 239	103, 002	2, 916, 485
1940 ³	4, 139, 091	99, 718		99, 718	47, 617	65, 572	113, 189	3, 029, 674
1941 ³	4, 138, 821	57, 149		57, 149	51, 663	37, 016	88, 679	3, 118, 353
1942 ³	4, 138, 952	63, 641		63, 641	53, 262	19, 963	73, 225	3, 191, 578
1943	4, 138, 993	56, 390		56, 390	53, 820	17, 938	71, 758	3, 263, 336
1944	4, 137, 087	57, 330		57, 330	52, 260	9, 357	61, 617	3, 324, 953
1945	4, 075, 398	33, 764		33, 764	19, 232	25, 944	45, 176	3, 370, 129
1946	4, 075, 398	55, 195		55, 195	32, 868	15, 713	48, 581	3, 418, 710
1947	4, 070, 225	60, 156	¹ 5, 173	54, 983	66, 470	¹ 512	65, 958	3, 484, 668
1948	4, 070, 225	58, 081	¹ 3, 466	54, 615	52, 014		52, 014	3, 536, 682
1949	4, 070, 225	41, 792		41, 792	48, 096		48, 096	3, 584, 778
1950	4, 188, 970	41, 195	¹ 864	40, 331	48, 147	¹ 683	47, 464	3, 632, 242
1951	4, 188, 970	37, 248		37, 248	40, 849		40, 849	3, 673, 091
1952	4, 188, 970	61, 434		61, 434	62, 881		62, 881	3, 735, 972
1953	4, 188, 970	42, 398		42, 398	42, 398		42, 398	3, 778, 370
1954	4, 187, 005	38, 207		38, 207	38, 207		38, 207	3, 816, 577
1955	4, 187, 005	42, 914		42, 914	42, 914		42, 914	3, 859, 491
1956	4, 184, 933	36, 301		36, 301	36, 301		36, 301	3, 895, 792
1957	4, 184, 933	24, 499		24, 499	24, 499		24, 499	3, 920, 290
Total		4, 185, 399	¹ 265, 108	3, 920, 291	3, 345, 611	574, 680	3, 920, 291	
Collected				3, 920, 291				
Uncollected				0				

¹ Decrease. Decreases cover funding of delinquent charges, deferments under relief acts, and cancellations of water-right applications. 1915—Reclamation Extension Act, Aug. 13, 1914.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar

years 1930, \$49,425; 1931, \$87,501; 1932, \$117,481; 1933, \$123,473; 1934, \$61,359; 1935, \$46,586; 1936, \$28,332.

³ Construction charges deferred under acts of Aug. 21, 1937, May 31, 1939, and Aug. 4, 1939, for calendar years 1947, \$7,598; 1938, \$7,598; 1939, \$19,125; 1940, \$11,737; and 1941, \$2,000.

*Operation and maintenance assessments history—
Sunnyside division*

Fiscal year	Accruals	Collections
1909-----	\$3, 572	\$3, 572
1910-----	19, 805	12, 656
1911-----	252, 706	223, 360
1912-----	50, 191	74, 670
1913-----	69, 721	37, 414
1914-----	66, 925	90, 475
1915-----	45, 054	34, 741
1916-----	69, 883	66, 408
1917-----	84, 324	80, 670
1918-----	80, 905	89, 981
1919-----	112, 847	120, 542
1920-----	134, 255	145, 214
1921-----	147, 936	101, 509
1922-----	152, 941	153, 441
1923-----	149, 807	138, 902
1924-----	150, 973	148, 050
1925-----	147, 577	97, 512
1926-----	152, 324	170, 796
1927-----	142, 187	160, 625
1928-----	137, 407	144, 866
1929-----	133, 504	99, 661
1930-----	135, 283	185, 275
1931-----	133, 958	127, 171
1932-----	130, 727	91, 248
1933-----	108, 511	85, 255
1934-----	101, 308	160, 276
1935-----	102, 041	117, 933
1936-----	110, 940	111, 332
1937-----	117, 504	121, 879
1938-----	121, 249	113, 744
1939-----	121, 401	117, 426
1940-----	131, 223	123, 121
1941-----	130, 579	132, 535
1942-----	136, 396	136, 007
1943-----	141, 589	156, 244
1944-----	130, 526	140, 069
1945-----	130, 571	142, 821
1946-----	38, 174	59, 618
1947-----	14, 800	24, 605
1948-----	12, 834	12, 834
1949-----	10, 637	10, 637
1950-----	14, 807	14, 807
1951-----	13, 262	13, 262
1952-----	15, 786	15, 786
1953-----	14, 301	14, 301
1954-----	12, 968	12, 968
1955-----	13, 322	13, 322
1956-----	15, 160	15, 160
1957-----	15, 154	15, 154
Total-----	4, 479, 855	4, 479, 855

TIETON DIVISION

Construction of the Tieton division was authorized by the Secretary of the Interior on December 12, 1905, and construction commenced in 1906. Water was first delivered to farms in 1910. Water is diverted from the Tieton River and is carried in a semicircular, concrete flume a distance of 12 miles. A distribution system of canals, flumes, and pipelines supplies irrigation water to 27,353 acres. This is one of the leading apple-producing districts of the nation.

The water-users management and operating organization is the Yakima-Tieton irrigation district. The district will continue to pay its pro rata share of the cost of operation and maintenance of the storage system.

Repayment contracts.—Final payment on the district's original principal construction obligation of \$3,449,114 was made in February 1947. On March 1, 1947, operation and maintenance responsibility was officially transferred from the Bureau of Reclamation to the Yakima-Tieton irrigation district.

PUBLIC NOTICES AND CONTRACTS

- 1910, November 7: Public notice. Construction charge \$93 per acre, payable in 10 equal annual installments.
- 1918, July 18, and 1936, January 11: Contracts with Yakima-Tieton irrigation district for supplemental construction work. Cost \$372,057, payable in 8 equal semiannual installments beginning with year 1940.
- 1920, July 29: Public notice. Construction charge \$110 per acre, payable in 20 graduated installments.
- 1929, October 27: Contract with 'Tieton Water Users' Association for purchase of water appurtenant to cancelled water-right applications. Cost \$65,901, payable in 40 graduated semiannual installments beginning with year 1930.
- 1945, January 6: Contract provides for purchase of 12,000 acre-feet of additional storage and natural flow during April, May and June, and 6,000 acre-feet during July, August, September and October at an approximate cost of \$135,000, repayable in 20 semiannual installments on January 1 and July 1 each year beginning July 1, 1946.
- 1946, January 3. Contract provides that district assume liability for and pay the uncollected accrued construction, operation and maintenance charges up to and including 1946 with penalties and interest and the unaccrued balance owing for construction charges. Included were construction charges on 3,032 acres of class 5 land in order that the water be retained. Maximum obligation \$25,000, payable in 2 equal installments beginning July 1, 1977.
- 1946, November 20: Contract provides that the district act as fiscal agent in collecting operation and maintenance charges from water users.
- 1947, February 5: Supplemental contract provides that upon payment of \$19,630.98, the district assume operation and maintenance effective March 1, 1947.

The status of Tieton division repayment on June 30, 1957, is as follows:

Total value of contracted repayment-----	\$3, 449, 114
Total matured charges-----	3, 449, 114
Total charges paid-----	3, 449, 114
Total matured charges unpaid-----	0

Construction repayment history—Tieton division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1911		\$180, 217		\$180, 217	\$4, 250		\$4, 250	\$4, 250
1912		53, 726		53, 726			76, 912	81, 162
1913		49, 387		49, 387	58, 035	\$26, 507	84, 542	165, 704
1914		129, 653		129, 653			22, 603	188, 307
1915	\$2, 577, 681			¹ 173, 298			35, 548	223, 855
1916	2, 716, 638			46, 300			43, 588	267, 443
1917	2, 833, 896			53, 342			55, 288	322, 731
1918	2, 893, 970			52, 190			50, 968	373, 699
1919	2, 917, 495			91, 973			87, 376	461, 075
1920	2, 944, 445	961, 475		100, 400	1, 145, 190		104, 965	566, 040
1921	3, 005, 719			146, 572			115, 443	681, 483
1922	3, 060, 747			154, 093			140, 978	822, 461
1923	3, 434, 079			161, 578			138, 555	961, 016
1924	3, 434, 322			163, 123			123, 261	1, 084, 277
1925	3, 434, 541			165, 202			149, 705	1, 233, 982
1926	3, 434, 541			167, 994			176, 182	1, 410, 164
1927	3, 434, 761		¹ \$1, 079	169, 303		98, 459	76, 006	1, 561, 373
1928	3, 384, 384		¹ 26, 630	142, 749		75, 203	112, 903	1, 756, 999
1929	3, 384, 384			170, 227		82, 723	92, 781	1, 933, 983
1930	3, 442, 728		¹ 3, 518	166, 328		84, 203	84, 111	2, 100, 093
1931	3, 442, 728		¹ 660	170, 215		81, 999	88, 125	2, 261, 466
1932 ²	3, 442, 728			171, 444		88, 125	19, 930	2, 318, 212
1933 ²	3, 447, 904		¹ 217, 727	¹ 117, 540		19, 930	¹ 8, 473	2, 335, 139
1934 ²	3, 442, 770		¹ 87, 612	¹ 67, 376		16, 927	¹ 12, 540	2, 334, 501
1935 ²	3, 481, 053		¹ 2, 982	6, 622		¹ 638	9, 167	2, 352, 627
1936 ²	3, 481, 076		¹ 2, 521	9, 502		18, 126	¹ 1, 909	2, 362, 742
1937 ²	3, 466, 111		¹ 1, 921	97, 909		10, 115	¹ 858	2, 413, 092
1938 ³	3, 466, 052			161, 377		50, 350	42, 788	2, 501, 496
1939 ³	3, 466, 052			157, 491		88, 404	34, 988	2, 577, 521
1940 ³	3, 466, 052		¹ 128, 264	26, 980		76, 025	70, 828	2, 675, 945
1941 ³	3, 466, 052		¹ 49, 941	112, 141		98, 424	77, 011	2, 788, 218
1942 ³	3, 466, 052		¹ 48, 838	103, 454		131, 603	78, 510	2, 919, 821
1943	3, 466, 052			161, 069		247, 982	101, 073	3, 167, 803
1944	3, 466, 052			170, 978		3, 350, 605	15, 018	3, 350, 605
1945	3, 466, 052			71, 715		3, 424, 336	4, 202	3, 424, 336
1946	3, 466, 052			16, 231		3, 439, 202	2, 091	3, 439, 202
1947	3, 449, 114		¹ 6, 139	5, 843		3, 449, 114	¹ 4, 047	3, 449, 114
Total		4, 026, 946	¹ 577, 832	3, 449, 114	2, 463, 179	985, 935	3, 449, 114	
Collected				3, 449, 114				
Uncollected				0				

¹ Decrease: Decreases cover delinquent charges funded, charges deferred under relief acts, and cancellation of water-right applications. 1915—Reclamation Extension Act, Aug. 13, 1914.

² Moratorium period, acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June

13, 1935, and Apr. 14, 1936. Total amount deferred for calendar years 1931 to 1936, \$643,254.

³ Construction charges deferred under acts of Aug. 21, 1937, May 31, 1939, and Aug. 4, 1939, calendar years 1937, \$5,329; 1938, \$3,010; 1939, \$46; 1940, \$93,014; and 1941, \$93,014.

*Operation and maintenance assessments history—
Tieton division*

Fiscal year	Accruals	Collections
1911	\$29,067	\$13,048
1912	8,666	23,281
1913	53,125	23,227
1914	41,596	63,756
1915	¹ 7,663	1,298
1916	40,727	25,653
1917	39,999	36,590
1918	50,857	46,362
1919	53,855	57,051
1920	60,953	66,099
1921	87,139	64,373
1922	106,331	92,033
1923	90,093	91,375
1924	89,277	72,547
1925	92,179	91,293
1926	76,762	85,467
1927	92,649	85,559
1928	82,300	107,737
1929	98,518	98,933
1930	100,932	99,384
1931	106,518	97,700
1932	89,614	73,453
1933	94,759	81,280
1934	67,936	105,146
1935	77,781	71,840
1936	86,269	82,724
1937	79,212	91,548
1938	79,151	69,918
1939	87,581	78,140
1940	88,505	94,776
1941	87,863	91,580
1942	74,709	91,086
1943	86,087	102,706
1944	84,606	91,026
1945	83,153	87,444
1946	84,108	74,127
1947	76,105	91,759
1948	32,655	32,655
1949	7,957	7,957
1950	8,995	8,995
1951	9,579	9,579
1952	6,405	6,405
1953	90	90
1954	6,180	6,180
1955	5,898	5,898
1956	6,065	6,065
1957	5,984	5,984
Total	2,811,127	2,811,127

¹ Decrease. Decreases cover delinquent charges funded, charges deferred under relief acts, and cancellation of water-right applications.

Allocation and repayment of costs—Yakima project

Item	Kennewick		Kittitas	Roza	Storage	Sunnyside	Tieton	Total construction program
	Chandler powerplant and irrigation	Prosser powerplant						
Total estimated cost	\$14, 472, 322	\$152, 277	\$8, 975, 360	\$21, 648, 433	\$10, 264, 963	\$3, 514, 147	\$2, 753, 908	\$61, 781, 410
Allocation:								
Irrigation	8, 800, 981		8, 975, 360	17, 164, 271	10, 264, 963	3, 514, 147	2, 753, 908	51, 473, 630
Power	4, 441, 407	152, 277		4, 484, 162				9, 077, 846
Fish and wildlife	1, 229, 934							1, 229, 934
Allocation to irrigation:								
Irrigation facilities	8, 800, 981		8, 975, 360	17, 164, 271	10, 264, 963	3, 514, 147	2, 753, 908	51, 473, 630
Funded charges			27, 293	779, 100	553, 729	169, 848	69, 751	1, 599, 721
Storage facilities	506, 057		2, 223, 000	2, 500, 000	(6, 562, 437)	693, 000	635, 380	
Total irrigation	9, 307, 038		11, 225, 653	20, 443, 371	4, 256, 255	4, 381, 995	3, 459, 039	53, 073, 351
Deduction:								
Water users equity (revenues received)						104, 302	23, 367	127, 669
Repayment reductions authorized						4, 215		4, 215
Contributions	42, 618		1, 000	152, 249	19, 782	7, 830		223, 479
Deferred costs	135, 400							
Irrigation repayment by power	4, 326, 934			1, 137, 818				
Depreciation on movable equipment				145, 461				145, 461
Subtotal deductions	4, 504, 952		1, 000	1, 435, 528	19, 782	116, 347	23, 367	6, 100, 976
Adjustments	7, 614		1, 000	220, 257	82, 923	(80, 715)	13, 442	244, 521
Repayment obligation (contracted)	4, 809, 700		11, 225, 653	19, 228, 100	4, 319, 396	4, 184, 933	3, 449, 114	47, 216, 896

Payout study

Fiscal year	Power—Kennewick division										Power—Roza division										Irrigation	
	Repayment components of net power revenues			Investment repayment from power revenues			Earned surplus (cumulative)	Net operating revenues	Repayment components of net power revenues			Investment repayment from power revenues			Earned surplus (cumulative)	Net revenues from water users	Investment repayment					
	Interest 2½ per cent	½ of interest applied to irrigation	Principal	Interest bearing allocation to commercial plant	Balance at end of year	In service			Required aid	Interest free aid to irrigation plant	Balance to be repaid	Interest bearing allocation to commercial plant	Balance at end of year	In service			Required aid	Interest free aid to irrigation plant	Balance to be repaid	Interest obligation of water users to be repaid	Interest free balance to be repaid	
Through 1956.....	\$142,330	0	\$142,330	\$3,964,732	\$3,822,402	\$4,326,934	0	0	0	\$77,767	0	0	0	0	0	\$13,595,406	\$47,216,896	\$3,621,490	0	0		
1957.....	152,000	\$95,560	\$19,112	3,964,732	3,765,962	4,326,934	0	\$77,767	0	\$77,767	\$1,057,160	\$879,393	0	\$4,564,820	\$4,564,820	0	308,314	47,216,896	\$3,313,176	0	0	
1958.....	152,000	94,149	18,830	3,964,732	3,708,111	4,326,934	0	93,000	\$29,382	63,618	1,057,160	915,775	0	4,564,820	4,564,820	0	405,286	47,216,896	\$2,907,890	0	0	
1959.....	152,000	92,703	18,541	3,964,732	3,648,814	4,326,934	0	93,000	27,473	65,527	1,057,160	850,248	0	4,564,820	4,564,820	0	429,047	47,216,896	\$2,478,843	0	0	
1960.....	152,000	91,220	18,244	3,964,732	3,588,034	4,326,934	0	93,000	25,577	67,493	1,057,160	782,755	0	4,564,820	4,564,820	0	436,422	47,216,896	\$2,042,421	0	0	
1961.....	152,000	89,701	17,940	3,964,732	3,525,735	4,326,934	0	93,000	23,483	69,517	1,057,160	713,238	0	4,564,820	4,564,820	0	450,817	47,216,896	\$1,604,604	0	0	
1962.....	152,000	88,143	17,629	3,964,732	3,461,878	4,326,934	0	93,000	21,397	71,603	1,057,160	641,635	0	4,564,820	4,564,820	0	427,341	47,216,896	\$1,164,263	0	0	
1963.....	152,000	86,547	17,309	3,964,732	3,396,425	4,326,934	0	93,000	19,249	73,751	1,057,160	567,884	0	4,564,820	4,564,820	0	440,016	47,216,896	\$724,247	0	0	
1964.....	152,000	84,911	16,982	3,964,732	3,329,386	4,326,934	0	93,000	17,037	75,963	1,057,160	491,921	0	4,564,820	4,564,820	0	450,602	47,216,896	\$283,645	0	0	
1965.....	152,000	83,233	16,647	3,964,732	3,260,569	4,326,934	0	93,000	14,758	78,242	1,057,160	413,679	0	4,564,820	4,564,820	0	460,370	47,216,896	\$20,813,275	0	0	
1966.....	152,000	81,514	16,303	3,964,732	3,190,083	4,326,934	0	93,000	12,410	80,599	1,057,160	333,089	0	4,564,820	4,564,820	0	468,535	47,216,896	\$29,344,740	0	0	
1967.....	152,000	79,752	15,950	3,964,732	3,117,835	4,326,934	0	93,000	9,993	83,007	1,057,160	250,082	0	4,564,820	4,564,820	0	474,449	47,216,896	\$28,870,291	0	0	
1968.....	152,000	77,946	15,589	3,964,732	3,043,781	4,326,934	0	93,000	7,502	85,498	1,057,160	164,584	0	4,564,820	4,564,820	0	479,466	47,216,896	\$28,390,825	0	0	
1969.....	152,000	76,095	15,219	3,964,732	2,967,876	4,326,934	0	93,000	4,938	88,062	1,057,160	76,522	0	4,564,820	4,564,820	0	539,629	47,216,896	\$27,305,125	0	0	
1970.....	152,000	74,197	14,839	3,964,732	2,890,073	4,326,934	0	93,000	2,296	90,300	1,057,160	76,522	0	4,564,820	4,564,820	0	546,071	47,216,896	\$26,764,229	0	0	
1971.....	152,000	72,252	14,450	3,964,732	2,810,325	4,326,934	0	93,000	0	92,598	1,057,160	76,522	0	4,564,820	4,564,820	0	540,886	47,216,896	\$26,254,726	0	0	
1972.....	152,000	70,258	14,062	3,964,732	2,728,583	4,326,934	0	93,000	0	94,943	1,057,160	76,522	0	4,564,820	4,564,820	0	509,513	47,216,896	\$25,745,213	0	0	
1973.....	152,000	68,215	13,643	3,964,732	2,644,798	4,326,934	0	93,000	0	97,390	1,057,160	76,522	0	4,564,820	4,564,820	0	508,058	47,216,896	\$25,237,155	0	0	
1974.....	152,000	66,120	13,224	3,964,732	2,558,918	4,326,934	0	93,000	0	1,00,804	1,057,160	76,522	0	4,564,820	4,564,820	0	506,604	47,216,896	\$24,730,551	0	0	
1975.....	152,000	63,973	12,795	3,964,732	2,470,891	4,326,934	0	93,000	0	1,03,284	1,057,160	76,522	0	4,564,820	4,564,820	0	505,604	47,216,896	\$24,223,947	0	0	
1976.....	152,000	61,772	12,354	3,964,732	2,380,663	4,326,934	0	93,000	0	1,05,716	1,057,160	76,522	0	4,564,820	4,564,820	0	504,604	47,216,896	\$23,717,343	0	0	
1977.....	152,000	59,517	11,903	3,964,732	2,288,180	4,326,934	0	93,000	0	1,08,190	1,057,160	76,522	0	4,564,820	4,564,820	0	503,604	47,216,896	\$23,210,739	0	0	
1978.....	152,000	57,204	11,441	3,964,732	2,193,384	4,326,934	0	93,000	0	1,10,640	1,057,160	76,522	0	4,564,820	4,564,820	0	502,604	47,216,896	\$22,704,135	0	0	
1979.....	152,000	54,885	10,967	3,964,732	2,096,219	4,326,934	0	93,000	0	1,13,090	1,057,160	76,522	0	4,564,820	4,564,820	0	501,604	47,216,896	\$22,198,509	0	0	
1980.....	152,000	52,405	10,481	3,964,732	1,994,540	4,326,934	0	93,000	0	1,15,539	1,057,160	76,522	0	4,564,820	4,564,820	0	499,834	47,216,896	\$21,698,675	0	0	
1981.....	152,000	49,916	9,983	3,964,732	1,894,540	4,326,934	0	93,000	0	1,18,000	1,057,160	76,522	0	4,564,820	4,564,820	0	497,834	47,216,896	\$21,188,841	0	0	
1982.....	152,000	47,364	9,473	3,964,732	1,789,904	4,326,934	0	93,000	0	1,20,434	1,057,160	76,522	0	4,564,820	4,564,820	0	495,834	47,216,896	\$20,739,007	0	0	
1983.....	152,000	44,748	8,950	3,964,732	1,682,652	4,326,934	0	93,000	0	1,22,884	1,057,160	76,522	0	4,564,820	4,564,820	0	493,834	47,216,896	\$20,259,173	0	0	
1984.....	152,000	42,066	8,413	3,964,732	1,572,718	4,326,934	0	93,000	0	1,25,334	1,057,160	76,522	0	4,564,820	4,564,820	0	491,834	47,216,896	\$19,779,339	0	0	
1985.....	152,000	39,318	7,864	3,964,732	1,460,036	4,326,934	0	93,000	0	1,27,784	1,057,160	76,522	0	4,564,820	4,564,820	0	489,834	47,216,896	\$19,299,505	0	0	
1986.....	152,000	36,501	7,300	3,964,732	1,344,537	4,326,934	0	93,000	0	1,30,234	1,057,160	76,522	0	4,564,820	4,564,820	0	487,834	47,216,896	\$18,819,671	0	0	
1987.....	152,000	33,613	6,723	3,964,732	1,226,150	4,326,934	0	93,000	0	1,32,684	1,057,160	76,522	0	4,564,820	4,564,820	0	485,834	47,216,896	\$18,339,837	0	0	
1988.....	152,000	30,624	6,131	3,964,732	1,104,804	4,326,934	0	93,000	0	1,35,134	1,057,160	76,522	0	4,564,820	4,564,820	0	483,834	47,216,896	\$17,860,003	0	0	
1989.....	152,000	27,620	5,524	3,964,732	982,958	4,326,934	0	93,000	0	1,37,584	1,057,160	76,522	0	4,564,820	4,564,820	0	481,834	47,216,896	\$17,380,169	0	0	
1990.....	152,000	24,511	4,902	3,964,732	862,222	4,326,934	0	93,000	0	1,40,034	1,057,160	76,522	0	4,564,820	4,564,820	0	479,834	47,216,896	\$16,900,335	0	0	
1991.....	152,000	21,323	4,265	3,964,732	742,222	4,326,934	0	93,000	0	1,42,484	1,057,160	76,522	0	4,564,820	4,564,820	0	477,834	47,216,896	\$16,420,501	0	0	
1992.....	152,000	18,056	3,612	3,964,732	622,222	4,326,934	0	93,000	0	1,44,934	1,057,160	76,522	0	4,564,820	4,564,820	0	475,834	47,216,896	\$15,940,667	0	0	
1993.....	152,000	14,708	2,942	3,964,732	502,222	4,326,934	0	93,000	0	1,47,384	1,057,160	76,522	0	4,564,820	4,564,820	0	473,834	47,216,896	\$15,460,833	0	0	
1994.....	152,000	11,276	2,255	3,964,732	382,222	4,326,934	0	93,000	0	1,49,834	1,057,160	76,522	0	4,564,820	4,564,820	0	471,834	47,216,896	\$14,980,999	0	0	
1995.....	152,000	7,757	1,551	3,964,732	262,222	4,326,934	0	93,000	0	1,52,284	1,057,160	76,522	0	4,564,820	4,564,820	0	469,834	47,216,896	\$14,501,165	0	0	
1996.....	152,000	4,151	830	3,964,732	142,222	4,326,934	0	93,000	0	1,54,734	1,057,160	76,522	0	4,564,820	4,564,820	0	467,834	47,216,896	\$14,021,331	0	0	
1997.....	152,000	0	0	3,964,732	0	4,326,934	0	93,000	0	1,57,184	1,057,160	76,522	0	4,564,820	4,564,820	0	465,834	47,216,896	\$13,541,497	0	0	
1998.....	152,000	0	0	3,964,732	0	4,326,934	0	93,000	0	1,60,134	1,057,160	76,522	0	4,564,820	4,564,820	0	463,834	47,216,896	\$13,061,663	0	0	
1999.....	152,000	0	0	3,964,732	0	4,326,934	0															

2012	152,000	0	3,964,732	0	4,326,934	1,458,343	0	93,000	0	1,057,160	0	4,564,820	737,638	0	479,834	47,216,896	6,823,821
2013	152,000	0	3,964,732	0	4,326,934	1,306,343	0	93,000	0	1,057,160	0	4,564,820	644,638	0	479,834	47,216,896	6,343,987
2014	152,000	0	3,964,732	0	4,326,934	1,154,343	0	93,000	0	1,057,160	0	4,564,820	551,638	0	479,834	47,216,896	5,864,153
2015	152,000	0	3,964,732	0	4,326,934	1,002,343	0	93,000	0	1,057,160	0	4,564,820	458,638	0	479,834	47,216,896	5,384,319
2016	152,000	0	3,964,732	0	4,326,934	850,343	0	93,000	0	1,057,160	0	4,564,820	365,638	0	466,103	47,216,896	4,918,216
2017	152,000	0	3,964,732	0	4,326,934	698,343	0	93,000	0	1,057,160	0	4,564,820	272,638	0	431,942	47,216,896	4,486,274
2018	152,000	0	3,964,732	0	4,326,934	546,343	0	93,000	0	1,057,160	0	4,564,820	179,638	0	407,383	47,216,896	4,078,591
2019	152,000	0	3,964,732	0	4,326,934	394,343	0	93,000	0	1,057,160	0	4,564,820	86,638	0	394,644	47,216,896	3,684,247
2020	152,000	0	3,964,732	0	4,326,934	242,343	0	86,638	0	1,057,160	0	4,564,820	0	0	368,080	47,216,896	3,316,167
2021	152,000	0	3,964,732	0	4,326,934	90,343	0	0	0	1,057,160	0	4,564,820	0	0	313,019	47,216,896	3,003,148
2022	30,343	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	298,959	47,216,896	2,704,189
2023	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	298,959	47,216,896	2,405,230
2024	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	240,126	47,216,896	2,106,271
2025	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	1,866,145
2026	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	1,699,137
2027	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	1,532,129
2028	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	1,365,121
2029	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	1,198,113
2030	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	1,031,105
2031	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	864,097
2032	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	697,089
2033	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	530,081
2034	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	167,008	47,216,896	363,073
2035	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	111,760	47,216,896	251,313
2036	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	111,760	47,216,896	139,533
2037	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	111,760	47,216,896	27,793
2038	0	0	3,964,732	0	4,326,934	0	0	0	0	1,057,160	0	4,564,820	0	0	27,793	47,216,896	0
Total	10,112,673	2,276,259	455,252	3,964,732	0	0	0	5,837,405	215,425	1,057,160	0	4,564,820	0	0	47,216,896	47,216,896	0

YUMA PROJECT

ARIZONA-CALIFORNIA

Construction on the Yuma project in Imperial County, Calif., and Yuma County, Ariz., was authorized by the Secretary of the Interior on May 10, 1904, in accordance with section 4 of the Reclamation Act of June 17, 1902 (32 Stat. 388). It was proposed to irrigate by gravity flow 15,000 acres of agricultural lands in the Reservation division (Imperial County) and 50,000 acres in the Valley division (Yuma County). The area to be ultimately served in the Reservation and Valley divisions is now estimated at 14,645 and 53,450 acres, respectively. Original project features included the Laguna Dam, Yuma Main Canal, Colorado River siphon, distribution canals and laterals, and drainage systems.

Following is a tentative allocation of total estimated costs:

Feature	Cost
Laguna Dam.....	\$2, 190, 206
Boundary pumping plant.....	173, 538

Feature	
Canals.....	\$1, 649, 677
Laterals.....	1, 479, 934
Drains.....	768, 064
Farm units.....	29, 482
Canal protection.....	226, 660
General facilities.....	73, 309
Powerplant.....	373, 637
Switchyard.....	32, 961
Transmission line.....	135, 243
Abandoned irrigation facilities.....	111, 910
Abandoned power facilities.....	60, 876
Railway crossing under construction.....	4, 519
Drain maintenance.....	7, 515
Cost to June 30, 1957.....	7, 317, 531
Completion of railway trestle.....	170, 787
Less maintenance costs.....	7, 515
Total estimated construction cost.....	7, 480, 803
Less costs assumed by other projects.....	1, 784, 968
Service facilities (operation and maintenance).....	34, 020
Allocable cost.....	5, 661, 815

Item	Reservation division	Valley division	North Gila Valley	Total
Total allocable costs.....	\$1, 071, 317	\$4, 206, 760	\$383, 738	¹ \$5, 661, 815
Allocation:				
Irrigation.....	1, 024, 350	² 3, 796, 371	383, 738	5, 204, 459
Power.....	46, 967	410, 389		457, 356
Repayment:				
From power revenues:				
For powerplant.....	46, 967	375, 832		422, 799
For irrigation plant.....	7, 365	58, 934		66, 299
From irrigation revenues:				
For powerplant.....		34, 557		34, 557
For irrigation plant.....	1, 016, 985	² 3, 737, 437	383, 738	5, 138, 160
Total reimbursable cost.....	1, 071, 317	4, 206, 760	383, 738	5, 661, 815
Operation and maintenance funded.....	968	544, 049		³ 545, 017
Interest and penalties funded.....	720	47, 163		47, 883
Total.....	1, 073, 005	4, 797, 972	383, 738	6, 254, 715
Less:				
Construction revenues.....	38, 490	238, 381		276, 871
Reserved power profits.....	20, 837	183, 540		204, 377
Contributed funds.....	34, 282	1, 488		¹ 35, 770
Chargeoff by Congress (Act of September 2, 1950, 64 Stat. 576).....			383, 738	383, 738
Adjustment.....	11, 918			11, 918
Total obligation.....	991, 314	4, 374, 563		5, 365, 877

¹ Includes \$7,515 to cover construction work in progress to be charged to operation and maintenance.

² Includes \$80,306 drainage costs repayable by the Yuma County Water Users' Association in accordance with contract No. 176r-671, art. 16 (c).

³ Includes \$341,092 water rentals during construction.

Laguna Dam.—The Laguna Dam and auxiliary works were constructed originally for the purpose of diverting water for the irrigation of approximately 126,000 acres of land in the Yuma project on the California and Arizona sides of the Colorado River. The cost of the dam structure and head-works is \$2,190,206 and was included in the original cost of \$7,317,531 for the Yuma project, and in the public notices announcing the repayment obligation. These costs were allocated to the lands in the Reservation, Valley, Gila, and Mesa (Yuma Auxiliary project) divisions of the Yuma project.

Later it was planned that the All-American Canal, when built, would connect at Laguna Dam. Under date of October 23, 1918, a contract was entered into between the United States and the Imperial irrigation district, which provided, among other things, for the diversion at Laguna Dam of all water needed by the district for the irrigation of its lands, and a main canal, entirely within the United States, for the carriage and transportation of such water for delivery to such lands. For the right to use the Laguna Dam, and the Main Canal (Yuma Main Canal), the district agreed to pay, and has paid the United States, \$1,600,000. In 1934 the Coachella Valley County water district and the city of San Diego assumed a portion of the cost. Payments by the Imperial irrigation district began in 1920. The total obligation of these contractors in the amount of \$1,608,640 has become due and has been paid in its entirety.

Because Laguna Dam is considered to be a necessary adjunct to the Imperial Dam, under the provisions of article 21 of the 1932 Imperial district contract, any agency that contracts with the United States for delivery of water through the All-American Canal is required to assume such proportion of the total cost (capital and operation and maintenance costs) of all jointly used works, including Laguna Dam, as the Secretary of the Interior may determine to be equitable and just.

Since the payments by the California interests constitute an overlap of charges accruing against the Yuma project, the Yuma water users have been receiving credits (acts of June 28, 1926, 44 Stat. 776, and February 26, 1929, 45 Stat. 1321), on construction and operation and maintenance charges for the payments made by the Imperial irrigation district, et al.

Determination of repayment obligation as of June 30, 1946:

Construction cost.....	\$1, 600, 000
Penalties funded.....	8, 640
Total.....	1, 608, 640

Repayment completed.

CONTRACTS

- 1918, October 23: Contract with Imperial irrigation district to pay cost of Laguna Dam in the amount of \$1,600,000 in 20 graduated annual installments.
- 1934, October 15: Contract with Coachella Valley County water district under which district assumes obligation to pay portion of debt of Imperial irrigation district.
- 1934, October 2: Contract with the city of San Diego under which the city assumes obligation to pay portion of debt of Imperial irrigation district.

North Gila Valley.—The North Gila Valley is now a part of the Gila project, and for the most part is included in the North Gila Valley irrigation district. Under terms of a contract executed on May 12, 1953, amended and supplemented by contract of June 24, 1954, the North Gila Valley irrigation district assumed an obligation of \$108,300 of the costs of the former Gila division costs of the Yuma project, which costs have been transferred to Gila project accounts. The balance of \$383,738 of Gila division costs is nonreimbursable pursuant to the act of September 2, 1950 (64 Stat. 576).

RESERVATION DIVISION

Total construction costs for the Reservation division features, as of June 30, 1957, amounted to \$1,034,586, of which \$991,314 is repayable under water-right contracts. The Reservation division, located in California, comprises Indian lands and white ownerships in the Bard unit under individual water-right applications. The operation and maintenance of the division is performed by the United States with appropriated funds.

Repayment.—Annual construction charges are assessed and collected by the United States from individuals with water rights on the Reservation division. Construction charges, fixed by Public Notice No. 1, amounted to \$55 per acre, payable in 10 graduated annual installments. Public Notice No. 2 increased the construction charges to \$66 per acre, payable in 10 graduated annual

Construction repayment history—Laguna Dam

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1920-----	\$1,600,000	\$32,000	-----	\$32,000	\$32,000	-----	\$32,000	\$32,000
1921-----	1,600,000	32,000	-----	32,000	32,000	-----	32,000	64,000
1922-----	1,600,000	32,000	-----	32,000	32,000	-----	32,000	96,000
1923-----	1,600,000	32,000	-----	32,000	32,000	-----	32,000	128,000
1924-----	1,600,000	64,000	-----	64,000	-----	-----	0	128,000
1925-----	1,600,000	64,000	-----	64,000	64,000	\$64,000	128,000	256,000
1926-----	1,600,000	96,000	-----	96,000	96,000	-----	96,000	352,000
1927-----	1,600,000	96,000	-----	96,000	96,000	-----	96,000	448,000
1928-----	1,600,000	96,000	-----	96,000	96,000	-----	96,000	544,000
1929-----	1,600,000	96,000	-----	96,000	96,000	-----	96,000	640,000
1930-----	1,600,000	96,000	-----	96,000	96,000	-----	96,000	736,000
1931-----	1,600,000	96,000	-----	96,000	96,000	-----	96,000	832,000
1932 ¹ -----	1,600,000	-----	-----	0	-----	-----	0	832,000
1933 ¹ -----	1,600,000	48,000	-----	48,000	48,000	-----	48,000	880,000
1934 ¹ -----	1,609,358	-----	² \$48,000	² 48,000	-----	² 48,000	² 48,000	832,000
1935 ¹ -----	1,617,280	-----	-----	0	-----	-----	0	832,000
1936 ¹ -----	1,608,640	-----	-----	0	-----	-----	0	832,000
1937 ¹ -----	1,608,640	48,000	-----	48,000	48,000	-----	48,000	880,000
1938-----	1,608,640	96,000	-----	96,000	96,000	-----	96,000	976,000
1939-----	1,608,640	96,000	-----	96,000	96,000	-----	96,000	1,072,000
1940 ³ -----	1,608,640	12,440	-----	12,440	1,165	-----	1,165	1,073,165
1941 ³ -----	1,608,640	1,165	-----	1,165	1,165	11,275	12,440	1,085,605
1942-----	1,608,640	98,880	-----	98,880	98,880	-----	98,880	1,184,485
1943-----	1,608,640	96,000	-----	96,000	96,000	-----	96,000	1,280,485
1944-----	1,608,640	96,000	-----	96,000	96,000	-----	96,000	1,376,485
1945-----	1,608,640	59,275	-----	59,275	59,275	-----	59,275	1,435,760
1946-----	1,608,640	172,880	-----	172,880	172,880	-----	172,880	1,608,640
Total-----	-----	1,656,640	² 48,000	1,608,640	1,581,365	27,275	1,608,640	-----
Collected-----	-----	-----	-----	1,608,640	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	0	-----	-----	-----	-----

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$96,000; 1932, \$96,000; 1933, \$96,000; 1934, \$96,000; 1935, \$96,000; and 1936, \$48,000.

² Decrease. Covers amount deferred under relief acts.

³ Construction charges deferred under act of Aug. 4, 1939, for year 1939, \$97,159; 1940, \$86,440.

installments. Public Notices No. 21 and 22 each announced an additional \$5 per acre supplemental construction charge for the power system and flood protection works, increasing the construction charge to \$76 per acre. Public Notices No. 65 and 66, issued under authority of act of October 25, 1949 (63 Stat. 903), canceled the accrued increased charges under Reclamation Extension Act of 1914 (38 Stat. 686) and fixed the construction charge at \$76 per acre where applications were made by, or before, September 4, 1952. After that date an increase of 5 percent per year is added as provided in the Reclamation Extension Act.

PUBLIC NOTICES

1910, January 12: Public notice. Construction charge of \$55 per acre, due in 10 graduated annual installments.

1912, March 7: Public notice. Construction charge of \$66 per acre, due in 10 graduated annual installments.

1918, March 9: Public notice. Construction charge of \$90 per acre, due in 20 graduated annual installments.

1925, November 11: Public notice. Supplemental construction of power system. Rate of \$5 per acre, due in 12 equal annual installments commencing in 1925.

1925, November 19: Public notice. Supplemental construction of protective works. Rate of \$5 per acre, payable in one installment after regular charges.

1947, August 22: Public notice. Construction charge of \$76 per acre, payable in 20 years.

1951, September 4: Public notice. Eliminated increased construction charges under Public Notice No. 6.

1951, September 4: Public notice. Set construction charge at \$76 per acre, payable in 20 years.

1957, January 21: Public notice. Construction charge of \$76 per acre on newly included lands, payable in 20 years.

The summary of status of repayment of Reservation division:

Total value of contracted repayment-----	\$991,314
Total matured charges-----	925,513
Total matured charges repaid-----	925,370
Total matured charges unpaid-----	143

Construction repayment history—Reservation division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1910		\$42, 685		\$42, 685				
1911		28, 848		28, 848	\$4, 622	\$35, 766	\$40, 388	\$40, 388
1912		111, 059		111, 059	2, 014	25, 059	27, 073	67, 461
1913		46, 138		46, 138			67, 890	135, 351
1914		40, 800		40, 800			6, 700	142, 051
1915		14, 270		14, 270			73, 097	215, 148
1916		117, 807		117, 807			54, 852	270, 000
1917		5, 184		5, 184			4, 200	274, 200
1918	\$827, 729							
1919	825, 023			18, 410	546, 330		25, 357	299, 557
1920	817, 931			52, 444			130, 871	430, 428
1921	873, 910	226, 847		31, 941			69, 558	499, 986
1922	873, 910			26, 613			11, 904	511, 890
1923	873, 910			32, 597			33, 369	545, 259
1924	869, 136			32, 344			40, 781	586, 040
1925	870, 585			32, 498			27, 751	613, 791
1926	896, 184	34, 473		34, 473	27, 040	14, 439	41, 479	655, 270
1927	896, 184	36, 327		36, 327	22, 555	8, 455	31, 010	686, 280
1928	922, 352	24, 637	¹ \$3, 699	20, 938	13, 402	14, 350	27, 752	714, 032
1929	891, 582	36, 245	¹ 33, 274	2, 971	31, 351	¹ 22, 089	9, 262	723, 294
1930	890, 948	18, 926		18, 926	15, 751	4, 704	20, 455	743, 749
1931	889, 116	18, 976	¹ 1, 400	17, 576	14, 625	1, 362	15, 987	759, 736
1932 ²	889, 116	19, 008		19, 008	12, 831	2, 815	15, 646	775, 382
1933 ²	892, 960	16, 668	¹ 4, 598	12, 070	9, 470	1, 378	10, 848	786, 230
1934 ²	893, 510	9, 291	¹ 6, 112	3, 179	7, 586	242	7, 828	794, 058
1935 ²	879, 629	4, 761	¹ 10, 606	¹ 5, 845	4, 187	¹ 5, 962	¹ 1, 775	792, 283
1936 ²	873, 688	4, 200	¹ 4, 805	¹ 605	3, 394	¹ 3, 854	¹ 460	791, 823
1937 ²	873, 691	4, 738	¹ 707	4, 031	3, 445	126	3, 571	795, 394
1938	915, 353	61, 915	¹ 167	61, 748	56, 105	1, 131	57, 236	852, 630
1939	918, 134	10, 932	¹ 1, 885	9, 047	8, 127	2, 898	11, 025	863, 655
1940	920, 901	10, 127		10, 127	4, 035	3, 091	7, 126	870, 781
1941	920, 901	7, 218		7, 218	2, 492	5, 026	7, 518	878, 299
1942	919, 894	5, 919	¹ 2, 129	3, 790	1, 917	3, 446	5, 363	883, 662
1943	919, 894	4, 495	¹ 66	4, 429	2, 357	4, 006	6, 363	890, 025
1944	919, 894	3, 165		3, 165	1, 611	2, 518	4, 129	894, 154
1945	919, 647	2, 198	¹ 247	1, 951	1, 954	1, 463	3, 417	897, 571
1946	919, 452	1, 506		1, 506	1, 057	582	1, 639	899, 210
1947	919, 452	1, 348		1, 348	1, 296	296	1, 592	900, 802
1948	959, 361	7, 148	¹ 995	9, 143	7, 205	1, 891	9, 096	909, 898
1949	958, 223	553	¹ 169	384	1, 492	¹ 1, 083	409	910, 307
1950	958, 223	1, 282		1, 282	276	231	507	910, 814
1951	958, 223	1, 070		1, 070	720	1, 006	1, 726	912, 540
1952	961, 708	757	¹ 5, 259	¹ 4, 502	654	¹ 4, 993	¹ 4, 339	908, 201
1953	964, 675	895		895	741	191	932	909, 133
1954	978, 459	3, 997		3, 997	3, 942	155	4, 097	913, 230
1955	981, 729	4, 465	¹ 996	3, 469	3, 313	55	3, 368	916, 598
1956	982, 165	3, 838		3, 838	3, 588	156	3, 744	920, 342
1957	991, 314	4, 921		4, 921	4, 778	250	5, 028	925, 370
Total.....		999, 637	-74, 124	925, 513	826, 263	99, 107	925, 370	
Collected.....				925, 370				
Uncollected.....				143				

¹ Decrease. Decreases cover cancellation of water-right applications and deferments under relief acts. Fiscal year 1952 decreases due to reduction of irrigable acreages resulting from revised farm unit plats and reduction of construction rate in accordance with Public Law 383, 81st Cong.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Total amount deferred for calendar years 1931 to 1936, \$36,816.

*Operation and maintenance assessments history—
Reservation division*

Fiscal year	Accruals	Collections
1910	\$6, 503	
1911	6, 503	\$12, 483
1912	24, 719	24, 999
1913	12, 337	1 281
1914	12, 384	6, 885
1915	0	144
1916	8, 212	16, 626
1917	28, 845	25, 727
1918		
1919	46, 106	42, 203
1920	45, 804	33, 685
1921	68, 734	77, 098
1922	71, 723	43, 325
1923	59, 677	75, 600
1924	66, 808	74, 647
1925	74, 874	74, 981
1926	69, 919	28, 518
1927	71, 414	68, 787
1928	68, 429	80, 770
1929	43, 372	91, 788
1930	53, 283	53, 107
1931	51, 453	48, 362
1932	41, 474	36, 896
1933	41, 311	41, 023
1934	33, 110	16, 893
1935	29, 065	35, 898
1936	29, 746	14, 157
1937	29, 424	65, 476
1938	28, 699	29, 152
1939	33, 524	33, 301
1940	29, 600	11, 851
1941	29, 459	25, 636
1942	29, 407	22, 577
1943	29, 372	31, 210
1944	29, 317	20, 296
1945	29, 310	52, 894
1946	42, 598	32, 238
1947	39, 949	23, 513
1948	54, 004	46, 251
1949	84, 262	91, 903
1950	85, 991	38, 581
1951	86, 925	120, 327
1952	84, 941	135, 618
1953	214, 853	130, 675
1954	109, 382	129, 409
1955	109, 753	114, 802
1956	109, 900	164, 304
1957	118, 667	115, 461
Total	2, 475, 142	2, 459, 796

¹ Decrease.

VALLEY DIVISION

Construction costs of the Valley division features, as of June 30, 1957, amounted to \$4,072,704. The Yuma County Water Users' Association has assumed a fixed repayment obligation in the amount of \$4,374,563 under the terms of the repayment contract dated April 1, 1957. The operation and maintenance of the Valley division was assumed by the Water Users' Association on July 1, 1951.

Repayment contracts.—Public Notice No. 6,

issued April 6, 1917, fixed the construction charges at \$75 per acre, payable in 20 graduated installments. Public Notices No. 21 and 22, dated November 11 and 19, 1925, each announced an additional \$5 per-acre charge for supplemental construction of a power system and flood-protection works, respectively. Payments under Public Notice No. 21 were payable in 12 annual installments, and a single payment under Public Notice No. 22 was to be made after all other regular charges were completed. Public Notices No. 65 and 66, issued on September 4, 1951, as a result of the act of October 25, 1949 (63 Stat. 903), canceled the increased construction charges accrued under the Reclamation Extension Act of 1914 (38 Stat. 686) and fixed the construction charge for all irrigable lands at \$85 per acre with a 5 percent increase each year for those private lands making application after September 4, 1952. Under repayment contract executed by the Yuma County Water Users' Association on February 5, 1931, payment of unaccrued construction costs of Valley division features, exclusive of amounts due under Public Notice No. 21, were to be repaid in 30 years with the association guaranteeing payment.

Repayment contract dated June 15, 1951, provided, among other things, for the transfer of the care, operation, and maintenance of the Valley division to the association. This transfer was effective July 1, 1951.

Pursuant to the act of June 29, 1956 (70 Stat. 409), a contract to establish a fixed repayment obligation for the association was executed on April 1, 1957. This obligation, which was \$116,040 at June 30, 1957, is to be decreased by the Valley division's share of any amount by which the actual cost of the Southern Pacific Trestle over the Yuma Main Canal varies from the estimated cost used in determining the above obligation. The total obligation will be repaid over a period of 7 years. In return for the assumption of a fixed obligation, this contract releases the association from its guaranty of amounts due for unaccrued construction charges as provided in the February 5, 1931, contract.

PUBLIC NOTICES AND CONTRACTS

1906, May 31: Contract with Yuma County Water Users' Association for construction of works of the Valley division.

1917, April 6: Public notice. Construction charge \$75 per acre, payable in 20 graduated annual installments.

1925, November 11: Public notice. Supplemental construction charge of \$5 per acre for power system.

1925, November 19: Public notice. Supplemental construction charge of \$5 per acre for flood-protective works.

1930, May 19: Public notice. Construction charge of \$123.09 per acre, payable in 20 graduated annual installments.

1931, February 5: Contract Ilr-635 with Yuma County Water Users' Association whereby the association assumed obligation under individual water-right applications. Repayment period extended to 30 years.

1947, August 22: Public notice. Construction charge of \$85 per acre, payable in 30 years for newly included lands.

1951, June 15: Contract 176r-671 with Yuma County Water Users Association for transfer of operation

and maintenance of Valley division to association, and repayment of \$80,306 of costs of drainage.

1951, September 4: Public notice. Eliminated increase in construction charges under Public Notice No. 6.

1951, September 4: Public notice. Construction charge set at \$85 per acre, payable in 30 years for all lands.

1957, April 1: Contract with Yuma County Water Users' Association whereby the association was released from its obligation under individual water-right applications and assumed a fixed repayment obligation.

Miscellaneous water contracts.—The following miscellaneous water contracts have been executed on the Valley division, with the contractors receiving water service from Valley division facilities:

Individual or organization	Date of contract	Type of contract	Contract period	Date of initial water deliveries	Rate of payment per acre-foot
Arizona Edison Co.-----	June 12, 1945	Supplemental water----	Dec. 31, 1970----	June 1945-----	¹ \$2
Yuma Union High School-----	Jan. 1, 1953	Miscellaneous-----	Indefinite-----	Jan. 1, 1953-----	(²)
Jay Brazeel-----	Jan. 1, 1953	-----do-----	-----do-----	Jan. 1, 1951-----	(²)

¹ Minimum charge of \$500 for 250 acre-feet of water. Excess used over 250 acre-feet at \$2 per acre-foot.

² Charge payable to Yuma County Water Users' Association in accordance with annual public notice.

The summary of status of repayment contracts of Valley division:

Total value of contracted repayment-----	\$4, 374, 563	Total matured charges repaid-----	\$4, 258, 523
Total matured charges-----	4, 258, 523	Total matured charges unpaid-----	0

Construction repayment history—Valley division

Fiscal year	Total obligation of water users to repay	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1918	\$959, 027	\$3, 928		\$3, 928	\$3, 356		\$3, 356	\$3, 356
1919	1, 116, 699	24, 210		24, 210			19, 769	23, 125
1920	2, 733, 672			85, 727			88, 361	111, 486
1921	3, 022, 982			56, 851			39, 437	150, 923
1922	3, 137, 446			82, 738			67, 907	218, 830
1923	3, 168, 560			103, 775			88, 500	307, 330
1924	3, 472, 512			321, 159			272, 647	579, 977
1925	3, 531, 039			216, 321			204, 956	784, 933
1926	3, 899, 518	223, 122	¹ \$1, 633	221, 489	122, 202	\$86, 104	208, 306	993, 239
1927	3, 962, 215	230, 353		230, 353	141, 828	106, 613	248, 441	1, 241, 680
1928	4, 176, 809	226, 507	¹ 9, 880	216, 627	146, 979	86, 798	233, 777	1, 475, 457
1929	4, 173, 705	227, 090	¹ 2, 249	224, 841	149, 894	79, 187	229, 081	1, 704, 538
1930	4, 157, 125	225, 049	¹ 14, 413	210, 636	161, 857	63, 912	225, 769	1, 930, 307
1931	4, 187, 164	230, 574	¹ 2, 288	228, 286	115, 921	28, 203	144, 124	2, 074, 431
1932 ²	4, 190, 635	124, 621	¹ 199, 828	¹ 75, 207	63, 040	¹ 48, 526	14, 514	2, 088, 945
1933 ²	4, 213, 564	24, 761	¹ 41, 050	¹ 16, 289	23, 152	19, 554	42, 706	2, 131, 651
1934 ²	4, 276, 527	36, 505	¹ 1, 237	35, 268	34, 568	¹ 618	33, 950	2, 165, 601
1935 ²	4, 311, 679	25, 549	¹ 7, 269	18, 280	24, 436	¹ 3, 538	20, 898	2, 186, 499
1936 ²	4, 365, 969	27, 179	¹ 6, 045	21, 134	26, 492	¹ 4, 154	22, 338	2, 208, 837
1937 ²	4, 385, 326	100, 512		100, 512	75, 142	1, 253	76, 395	2, 285, 232
1938	4, 410, 118	124, 570		124, 570	78, 345	22, 789	101, 134	2, 386, 366
1939	4, 410, 118	122, 934		122, 934	76, 526	42, 962	119, 488	2, 505, 854
1940	4, 410, 118	122, 375		122, 375	78, 726	38, 671	117, 397	2, 623, 251
1941 ³	4, 366, 616	61, 043	¹ 32, 279	28, 764	29, 999	19, 623	49, 622	2, 672, 873
1942 ³	4, 389, 121	59, 915		59, 915	42, 527	32, 687	75, 214	2, 748, 087
1943	4, 388, 280	119, 658		119, 658	101, 263	19, 922	121, 185	2, 869, 272
1944	4, 393, 745	119, 308		119, 308	103, 191	18, 321	121, 512	2, 990, 784
1945	4, 393, 745	120, 240		120, 240	108, 143	16, 014	124, 157	3, 114, 941
1946	4, 393, 745	119, 603		119, 603	119, 414	13, 440	132, 854	3, 247, 795
1947	4, 408, 945	102, 208	¹ 235	101, 973	100, 749	268	101, 017	3, 348, 812
1948	4, 487, 010	101, 318	1, 422	102, 740	101, 063	2, 648	103, 711	3, 452, 523
1949	4, 487, 010	101, 129	⁴ 55, 388	156, 517	98, 363	58, 241	156, 604	3, 609, 127
1950	4, 485, 054	129, 146	¹ 39	129, 107	128, 855	45	128, 900	3, 738, 027
1951	4, 482, 692	99, 791	¹ 181	99, 610	99, 579	¹ 76	99, 503	3, 837, 530
1952	4, 455, 884	109, 380	¹ 4, 966	104, 414	109, 356	¹ 4, 622	104, 734	3, 942, 264
1953	4, 475, 019	68, 681		68, 681	68, 681	103	68, 784	4, 011, 048
1954	4, 536, 325	54, 704		54, 704	54, 695		54, 695	4, 065, 743
1955	4, 622, 577	68, 806	⁵ 40, 231	109, 037	68, 806	40, 240	109, 046	4, 174, 789
1956	4, 626, 415	47, 099		47, 099	47, 099		47, 099	4, 221, 888
1957	⁶ 4, 374, 563	36, 635		36, 635	36, 635		36, 635	4, 258, 523
Total		4, 485, 074	- 226, 551	4, 258, 523	3, 522, 459	736, 064	4, 258, 523	
Collected				4, 258, 523				
Uncollected				0				

¹ Decrease. Decreases cover cancellation of water-right applications and deferments under relief acts.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$61,280; 1932, \$124,336; 1933, \$142,221; 1934, \$145,682; 1935, \$140,176; 1936, \$39,357.

³ Construction charges deferred under act of Aug. 4, 1939, year 1940, \$62,871; 1941, \$61,990.

⁴ Adjustment of future years' accruals due to payment in full of water-right contracts.

⁵ Increase.

⁶ Reduction in obligation resulted from establishment of a fixed repayment obligation in accordance with contract of Apr. 1, 1957, and act of June 29, 1956 (70 Stat. 409).

*Operation and maintenance assessments history—
Valley division*

Fiscal year	Accruals	Collections
1918		
1919	\$31, 739	\$25, 372
1920	137, 424	136, 699
1921	199, 210	116, 385
1922	184, 477	125, 238
1923	175, 883	178, 833
1924	278, 543	298, 574
1925	253, 756	234, 272
1926	235, 500	204, 634
1927	247, 062	256, 009
1928	234, 620	275, 110
1929	193, 070	238, 332
1930	176, 945	173, 527
1931	¹ 1, 663	17, 475
1932	161, 646	214, 325
1933	88, 855	99, 763
1934	62, 502	62, 512
1935	76, 816	78, 276
1936	43, 814	44, 710
1937	124, 395	124, 548
1938	126, 144	126, 144
1939	145, 081	145, 081

*Operations and maintenance assessment history—
Valley division—Continued*

Fiscal Year	Accruals	Collections
1940	\$123, 853	\$123, 853
1941	114, 508	114, 508
1942	139, 428	139, 428
1943	146, 129	146, 129
1944	171, 411	171, 411
1945	162, 623	162, 623
1946	138, 495	138, 495
1947	286, 739	286, 739
1948	385, 715	385, 715
1949	856, 630	829, 164
1950	568, 962	453, 466
1951	422, 128	565, 090
1952	22, 000	22, 000
1953	25, 803	25, 803
1954	19, 386	19, 386
1955	22, 396	22, 396
1956	20, 532	20, 532
1957	32, 657	32, 657
Total	6, 835, 214	6, 835, 214

¹ Decrease.

Contracts for sale of power (as amended to Feb. 13, 1957)

Contract No.	Contractor	Contract rate of delivery	Date of execution	Date of termination
14-06-300-286	Imperial irrigation district	(²)	May 1, 1952	Indefinite.
176r-671 ¹	Yuma County Waters Users Association	(³)	June 15, 1951	Do.

¹ Repayment contract.

² As required for operation of Imperial Dam and associated works.

³ As required for irrigation and drainage pumping on the Valley division of the Yuma project to the extent that power and energy is available from Siphon Drop powerplant.

Payout study—Reservation division

Fiscal year	Investment repayment		
	Net revenues from irrigation water users	Irrigation plant in service at end of year	Balance to be repaid
1958	\$3, 976	\$1, 034, 586	\$61, 825
1959	4, 858	1, 034, 586	56, 967
1960	4, 894	1, 034, 586	52, 073
1961	4, 773	1, 034, 586	47, 300
1962	4, 797	1, 034, 586	42, 503
1963	5, 120	1, 034, 586	37, 383
1964	5, 241	1, 034, 586	32, 142
1965	5, 107	1, 034, 586	27, 035
1966	5, 115	1, 034, 586	21, 920
1967	5, 115	1, 034, 586	16, 805
1968	5, 485	1, 034, 586	11, 320
1969	2, 362	1, 034, 586	8, 958
1970	2, 163	1, 034, 586	6, 795
1971	1, 864	1, 034, 586	4, 931
1972	1, 256	1, 034, 586	3, 675
1973	890	1, 034, 586	2, 785
1974	890	1, 034, 586	1, 895
1975	651	1, 034, 586	1, 244
1976	622	1, 034, 586	622
1977	622	1, 034, 586	0

Payout study—Valley division

Fiscal year	Yuma County Water Users' Association	Irrigation plant in service at end of year	Balance to be repaid
1958	\$17, 067	\$4, 072, 704	\$98, 973
1959	17, 233		81, 740
1960	17, 717		64, 023
1961	17, 392		46, 631
1962	16, 287		30, 344
1963	16, 503		13, 841
1964	13, 841		0
Total	116, 040		

YUMA AUXILIARY PROJECT

YUMA, ARIZ.

The Yuma Auxiliary project was authorized by the act of January 25, 1917 (39 Stat. 868). Original plans for irrigating agricultural lands in the Yuma project included 45,000 acres on the adjacent Yuma Mesa to be known as the Yuma Auxiliary project, which would receive its water by a pump lift of 72 feet from the East Main Canal in the Valley division of the Yuma project.

A public notice, issued October 3, 1919, authorized the sale of public lands and the construction of a distribution system to irrigate part 1 of unit B of the Yuma Auxiliary project.

Original construction costs of the Auxiliary project amounted to \$2,264,007 of which \$622,955 will be repayable by water users. Costs allocated to lands outside the Yuma Auxiliary project, as limited by the act of June 13, 1949 (63 Stat. 172), totaling \$1,641,052, were made nonreimbursable thereby. Of this amount, \$618,670 was offset by the application of Imperial irrigation district credits in accordance with section 3 of the act of June 13, 1949 (63 Stat. 172). As of June 30, 1957, \$616,973 of original construction costs were actually covered under existing water rights, with remaining costs to be recovered by future water-right applications. In addition to a charge for construction, each water-right application also includes a charge for land.

The act of June 13, 1949 (63 Stat. 172), which limited the Yuma Auxiliary project to 3,305 acres, also authorized delivery of water to the project through the facilities of the Gila project. The unit B irrigation and drainage district, encompassing the lands of the Yuma Auxiliary project, executed a contract on December 22, 1952, whereby an obligation of \$456,090 of Gila project costs was assumed for the district's share of Gila project capacity. In addition, an obligation of not to exceed \$510,000 was assumed for rehabilitation and improvement of the Yuma Auxiliary

project's irrigation works. Rate of repayment is dependent upon the acreage actually under water right. Works exclusively for the Yuma Auxiliary project include the B Main Canal and the distribution system. Water deliveries through the facilities of the Gila project began on July 6, 1953. The B-Lift pumping plant, which originally pumped water from the Yuma project works, has since been abandoned. The United States performs the operation and maintenance with funds advanced by the water users.

PUBLIC NOTICES AND CONTRACTS

- 1919, October 3: Sale of land and water right. Construction charge \$200 per acre; land charge approximately \$25 per acre, payable in 4 equal annual installments. By act of February 21, 1925, the purchase price of land and water rights was payable thereafter in 10 equal annual installments at 6 percent interest.
- 1951, January 29: Public notice regarding exchange of private lands for public lands. The act of June 13, 1949, Public Law 102, 81st Congress, limited the area of the Yuma Auxiliary project and allowed exchange of private land with water right outside limited boundaries of the project for public lands within the boundaries. The cost of water right also was reduced to not less than \$160.
- 1952, December 22: Contract 14-06-300-44 with unit B irrigation and drainage district. Established a maximum repayment obligation of \$966,090, including \$456,090 for a share of Gila project costs and \$510,000 for extension and betterment of Yuma Auxiliary project works. Obligation to be repaid in 120 equal semiannual installments, with installments dependent on acreage under water right. Contract provided for delivery of water to not to exceed 215 acres of nonproject lands through the works of the project. In accordance therewith, two Warren Act contracts covering a total of 100.7 acres were executed with the Yuma Mesa Grapefruit Co. and the University of Arizona on December 23, 1953, and January 1, 1954, respectively.

The summary of the status of repayment contracts as of June 30, 1957:

Item	Individual water rights		District contract	Total
	Construction	Lands, etc. ¹		
Total value of contracted repayment.....	² \$617, 466	\$510, 901	\$942, 803	\$2, 071, 170
Total matured charges.....	535, 319	379, 682	32, 376	947, 377
Total matured charges repaid.....	533, 079	373, 290	32, 376	938, 745
Total matured charges unpaid.....	2, 240	6, 392	-----	8, 632

¹ Includes purchase price of land, construction and land forfeitures, interest and penalties.

² Includes \$493 of funded interest on construction charges.

Miscellaneous water contracts.—The following miscellaneous water contracts have been executed on the Yuma Auxiliary project:

Organization	Date of contract	Type of contract	Contract period	Date of initial water deliveries	Rate of payment per acre-foot
University of Arizona.....	Jan. 1, 1954	Warren Act....	Indefinite.....	Jan. 4, 1954	Current acre-foot rate.
Yuma Mesa Grapefruit Co....	Dec. 23, 1953	do.....	do.....	Jan. 11, 1954	Do.

Construction repayment history

Fiscal year	Total obligation of water users to repay ¹	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1921.....	\$1, 208, 056	\$604, 028	-----	\$604, 028	\$423, 388	-----	\$423, 388	\$423, 388
1922.....	1, 206, 056	300, 514	-----	300, 514	72, 638	\$27, 645	100, 283	523, 671
1923.....	1, 189, 390	297, 348	¹ \$12, 500	284, 848	64, 176	105, 796	169, 972	693, 643
1924.....	1, 065, 557	290	¹ 124, 993	¹ 124, 703	290	6, 140	6, 430	700, 073
1925.....	952, 476	290	¹ 113, 080	¹ 112, 790	250	¹ 14, 334	¹ 14, 084	685, 989
1926.....	843, 807	290	¹ 108, 669	¹ 108, 379	290	¹ 12, 027	¹ 11, 737	674, 252
1927.....	829, 379	1, 202	¹ 36, 976	¹ 35, 774	622	6, 910	7, 532	681, 784
1928.....	712, 785	0	¹ 107, 500	¹ 107, 500	0	¹ 48, 785	¹ 48, 785	632, 999
1929.....	645, 502	2, 252	¹ 67, 329	¹ 65, 077	2, 217	¹ 48, 108	¹ 45, 891	587, 108
1930.....	607, 571	696	¹ 45, 586	¹ 44, 890	348	809	1, 157	588, 265
1931.....	603, 851	696	¹ 2, 990	¹ 2, 294	232	¹ 2, 770	¹ 2, 538	585, 727
1932.....	604, 993	812	2, 663	3, 475	232	2, 943	3, 175	588, 902
1933.....	605, 679	812	2, 312	3, 124	0	421	421	589, 323
1934.....	604, 885	812	¹ 1, 928	¹ 1, 116	232	¹ 1, 309	¹ 1, 077	588, 246
1935.....	604, 053	1, 508	¹ 294	1, 214	1, 044	727	1, 771	590, 017
1936.....	596, 815	1, 537	¹ 8, 017	¹ 6, 480	940	¹ 6, 309	¹ 5, 369	584, 648
1937.....	590, 589	227	¹ 4, 503	¹ 4, 276	227	¹ 3, 250	¹ 3, 023	581, 625
1938.....	584, 577	226	¹ 5, 069	¹ 4, 843	226	¹ 4, 986	¹ 4, 760	576, 865
1939.....	579, 039	221	¹ 4, 175	¹ 3, 954	221	¹ 4, 698	¹ 4, 477	572, 388
1940.....	579, 106	116	2, 191	2, 307	116	2, 919	3, 035	575, 423
1941.....	578, 000	119	¹ 618	¹ 499	118	¹ 859	¹ 741	574, 682
1942.....	578, 030	119	508	627	119	522	641	575, 323
1943.....	578, 058	119	261	380	119	738	857	576, 180
1944.....	585, 018	6, 960	116	7, 076	6, 960	116	7, 076	583, 256
1945.....	608, 824	16, 498	-----	16, 498	16, 498	-----	16, 498	599, 754
1946.....	724, 033	37, 757	-----	37, 757	37, 550	1, 763	39, 313	639, 067
1947.....	774, 382	29, 487	-----	29, 487	22, 736	206	22, 942	662, 009
1948.....	794, 487	21, 401	232	21, 633	13, 391	1, 401	14, 792	676, 801
1949.....	803, 448	23, 319	1, 160	24, 479	15, 297	2, 059	17, 356	694, 157
1950.....	813, 540	26, 248	¹ 480	25, 768	10, 131	12, 245	22, 376	716, 533
1951.....	784, 237	23, 689	¹ 20, 180	3, 509	10, 745	12, 896	23, 641	740, 174
1952.....	795, 461	13, 724	-----	13, 724	7, 163	5, 662	12, 825	752, 999
1953.....	800, 203	17, 697	-----	17, 697	13, 285	4, 533	17, 818	770, 817
1954.....	811, 996	15, 331	-----	15, 331	13, 382	4, 753	18, 135	788, 952
1955.....	813, 097	8, 647	¹ 162	8, 485	6, 860	1, 949	8, 809	797, 761
1956.....	973, 126	24, 490	-----	24, 490	24, 037	1, 625	25, 662	823, 423
1957.....	1, 128, 367	91, 125	-----	91, 125	82, 493	453	82, 946	906, 369
Total.....	-----	1, 570, 607	¹ — 655, 606	915, 001	848, 573	57, 796	906, 369	-----
Collected.....	-----	-----	-----	906, 369	-----	-----	-----	-----
Uncollected.....	-----	-----	-----	8, 632	-----	-----	-----	-----

¹ Decrease. Decreases represent cancellations of water-right applications and voluntary relinquishments due to inability of water users to develop large tracts.

Construction repayment history—Unit B irrigation and drainage district

Fiscal year	Total obligation of water users to repay	Accruals			Collections			Cumulative total
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	
1954-----	\$375, 789	\$5, 586	-----	\$5, 586	\$5, 586	-----	\$5, 586	\$5, 586
1955-----	378, 549	6, 286	-----	6, 286	6, 286	-----	6, 286	11, 782
1956-----	832, 139	6, 289	— \$139	6, 150	6, 150	-----	6, 150	18, 022
1957-----	942, 803	14, 354	-----	14, 354	14, 354	-----	14, 354	32, 376
Total-----	-----	32, 515	— 139	32, 376	32, 376	-----	32, 376	-----
Collected-----	-----	-----	-----	32, 376	-----	-----	-----	-----
Uncollected-----	-----	-----	-----	0	-----	-----	-----	-----

Operation and maintenance assessments history

Fiscal year	Accruals	Collections
1921-----	-----	-----
1922-----	\$17, 072	\$4, 912
1923-----	42, 889	24, 358
1924-----	59, 762	26, 492
1925-----	51, 829	40, 090
1926-----	44, 256	36, 949
1927-----	44, 155	27, 273
1928-----	38, 473	79, 216
1929-----	28, 653	72, 508
1930-----	31, 443	39, 360
1931-----	29, 643	31, 163
1932-----	28, 548	24, 276
1933-----	18, 426	15, 902
1934-----	18, 105	15, 244
1935-----	15, 139	20, 113
1936-----	15, 013	19, 884
1937-----	15, 855	18, 375
1938-----	18, 329	17, 993
1939-----	15, 862	15, 758
1940-----	13, 250	12, 525
1941-----	13, 961	13, 638
1942-----	14, 312	13, 601
1943-----	14, 895	15, 041
1944-----	20, 915	22, 247
1945-----	25, 517	25, 700
1946-----	32, 189	32, 005
1947-----	42, 425	39, 373
1948-----	43, 231	42, 959
1949-----	44, 530	43, 344
1950-----	62, 399	58, 355
1951-----	57, 143	66, 388
1952-----	70, 267	70, 155
1953-----	71, 837	71, 127
1954-----	95, 728	99, 727
1955-----	60, 861	60, 861
1956-----	63, 427	63, 427
1957-----	74, 431	74, 431
Total-----	1, 354, 770	1, 354, 770

*Payout study*¹—*Construction costs*

Fiscal year	Revenue from individual water rights	Revenue from district contract	Total revenue	Investment repayment	
				Irrigation plant in service at end of year ²	Interest-free balance to be repaid
1958	\$11,541	\$15,707	\$27,248	\$1,589,045	\$999,268
1959	11,340	16,101	27,441	1,589,045	971,827
1960	11,141	16,101	27,242	1,589,045	944,585
1961	11,141	16,101	27,242	1,589,045	917,343
1962	10,740	16,101	26,841	1,589,045	890,502
1963	10,548	16,101	26,649	1,589,045	863,853
1964	10,308	16,101	26,409	1,589,045	837,444
1965	10,308	16,101	26,409	1,589,045	811,035
1966	4,668	16,101	20,769	1,589,045	790,266
1967	1,067	16,101	17,168	1,589,045	773,098
1968		16,101	16,101	1,589,045	756,997
1969		16,101	16,101	1,589,045	740,896
1970		16,101	16,101	1,589,045	724,795
1971		16,101	16,101	1,589,045	708,694
1972		16,101	16,101	1,589,045	692,593
1973		16,101	16,101	1,589,045	676,492
1974		16,101	16,101	1,589,045	660,391
1975		16,101	16,101	1,589,045	644,290
1976		16,101	16,101	1,589,045	628,189
1977		16,101	16,101	1,589,045	612,088
1978		16,101	16,101	1,589,045	595,987
1979		16,101	16,101	1,589,045	579,886
1980		16,101	16,101	1,589,045	563,785
1981		16,101	16,101	1,589,045	547,684
1982		16,101	16,101	1,589,045	531,583
1983		16,101	16,101	1,589,045	515,482
1984		16,101	16,101	1,589,045	499,381
1985		16,101	16,101	1,589,045	483,280
1986		16,101	16,101	1,589,045	467,179
1987		16,101	16,101	1,589,045	451,078
1988		16,101	16,101	1,589,045	434,977
1989		16,101	16,101	1,589,045	418,876
1990		16,101	16,101	1,589,045	402,775
1991		16,101	16,101	1,589,045	386,674
1992		16,101	16,101	1,589,045	370,573
1993		16,101	16,101	1,589,045	354,472
1994		16,101	16,101	1,589,045	338,371
1995		16,101	16,101	1,589,045	322,270
1996		16,101	16,101	1,589,045	306,169
1997		16,101	16,101	1,589,045	290,068
1998		16,101	16,101	1,589,045	273,967
1999		16,101	16,101	1,589,045	257,866
2000		16,101	16,101	1,589,045	241,765
2001		16,101	16,101	1,589,045	225,664
2002		16,101	16,101	1,589,045	209,563
2003		16,101	16,101	1,589,045	193,462
2004		16,101	16,101	1,589,045	177,361
2005		16,101	16,101	1,589,045	161,260
2006		16,101	16,101	1,589,045	145,159
2007		16,101	16,101	1,589,045	129,058
2008		16,101	16,101	1,589,045	112,957
2009		16,101	16,101	1,589,045	96,856
2010		16,101	16,101	1,589,045	80,755
2011		16,101	16,101	1,589,045	64,654
2012		16,101	16,101	1,589,045	48,553
2013		16,101	16,101	1,589,045	32,452
2014		10,515	10,515	1,589,045	21,937
2015		9,954	9,954	1,589,045	11,983
2016		9,812	9,812	1,589,045	2,171
2017		1,748	1,748	1,589,045	423
2018		423	423	1,589,045	0

¹ Based on assumption that total of 3,305 acres will be under water right by the end of fiscal year 1958. Actual acreage under water right as of June 30, 1957, was 3,238.40.

² Includes reimbursable original Auxiliary construction costs of \$622,955, repayable by individuals, and \$966,090 repayable by district.

INDEX

	Page		Page
Aberdeen Springfield Canal Co.....	155	Bonneville Power Administration.....	70, 105, 317
Agency Valley Dam and Reservoir—Vale.....	303	Bonny Dam and Reservoir, St. Francis unit—	
Alamogordo Dam—Carlsbad.....	40	Missouri River Basin.....	188
Alcova powerplant—Kendrick.....	113	Bostwick division—Missouri River Basin.....	174
Alfalfa Valley irrigation district—Milk River... 139, 141		Boulder Canyon.....	24, 28
All-American Canal System—Boulder Canyon... 24, 333		Boulder Creek Supply Canal—Colorado-Big Thomp-	
Alliance irrigation district—North Platte.....	201	son.....	54
Altus Dam and Reservoir—W. C. Austin.....	309	Boysen unit—Missouri River Basin.....	176, 186
Altus, Oklahoma.....	309	Box Butte Dam and Reservoir—Mirage Flats....	166
Alva B. Adams tunnel—Colorado-Big Thompson..	54	Brewster Flat irrigation district—Chief Joseph	
American Falls Dam and powerplant—Mini-		Dam.....	51
doka.....	136, 154, 224	Bridgeport Bar irrigation district—Chief Joseph	
American Falls Reservoir District No. 1.....	155	Dam.....	51
American Falls Reservoir District No. 2.....	155	Bridgeport irrigation district—Burnt River.....	35
Anchor Dam, Owl Creek unit—Missouri River		Bridgeport irrigation district—North Platte.....	203
Basin.....	186	Brown's Creek irrigation district—North Platte..	203, 204
Anchorage substation—Eklutna.....	82	Buckeye County water district—Central Valley... 47	
Anderson Ranch Dam and Reservoir—Boise... 13, 14, 17		Buffalo Bill Dam and Reservoir—Shoshone.....	270
Angostura unit, Cheyenne division—Missouri River		Buffalo Rapids.....	32
Basin.....	169	Buford-Trenton.....	34
Aqueduct division—Provo River.....	235	Bull Lake Dam—Riverton.....	252
Arch Hurley conservancy district—Tucumcari... 291		Bully Creek Siphon—Vale.....	303
Armel pumping plant, St. Francis unit—Missouri		Bureau of Indian Affairs.....	25,
River Basin.....	188	147, 155, 187, 227, 232, 252, 258, 322, 333	
Arnold.....	1, 76	Burley irrigation district—Minidoka.....	160
Arrowrock division—Boise.....	13	Burnt River.....	35
Aspen Creek Siphon—Colorado-Big Thompson....	54		
Austin, W. C. (see W. C. Austin).....	309	“C” line pump plant—Boise.....	16
Avalon Reservoir—Carlsbad.....	40	Caballo Dam—Rio Grande.....	243
Avondale.....	3	Cachuma.....	37
		California-Oregon Power Co.—Klamath.....	127
B-lift pumping plant—Yuma Auxiliary.....	340	Canadian River.....	39
Baker.....	4	Canyon Ferry unit—Missouri River Basin.....	177, 183
Bald Mountain tunnel—Colorado-Big Thompson..	54	Capital View irrigation district—Boise.....	16, 21
Ballentyne Ditch Co.—Boise.....	16, 21	Carbon Water Conservancy district—Seofield....	268
Balmorhea.....	6	Carlsbad.....	40
Bard unit—Yuma.....	333	Carpenteria County water district—Cachuma....	37
Bartlett Dam—Salt River.....	258	Carson diversion dam—Newlands.....	195
Beerline Irrigation Canal Co.....	202	Carter Lake Dam—Colorado-Big Thompson.....	54
Belle Fourche.....	8, 184	Cascade Dam and Reservoir—Boise.....	13, 16
Big Bend irrigation district—Boise.....	14, 16, 21	Casitas Reservoir—Ventura River.....	305
Big Flat unit—Missoula Valley.....	168	Casper-Alcova irrigation district—Kendrick.....	113
Big Sandy Dam and Reservoir—Eden.....	80	Casper Canal and lateral system—Kendrick.....	113
Big Thompson powerplant.....	54	Cedar Bluff unit—Missouri River Basin.....	177
Bighorn Basin division—Missouri River Basin. 176, 182, 186		Central irrigation district—North Platte.....	203
Bitter Root.....	11	Central Oregon irrigation district—Deschutes and	
Black Canyon Dam—Boise.....	13	Arnold.....	1, 76
Black Canyon irrigation district—Boise.....	16, 18, 21	Central Utah—Colorado River Storage.....	66
Blue Mesa Dam—Colorado River Storage.....	64	Central Valley.....	44
Boca Dam and Reservoir—Truckee storage.....	289	Chain Lakes Dam and Reservoir—Milk River....	139
Boise.....	13, 154	Chandler Power Canal and powerplant—Yakima..	317
Boise—Kuna irrigation district.....	14, 16, 21	Charles Hanson (Horsetooth) Feeder Canal—Colo-	
Boise River diversion dam.....	13	rado-Big Thompson.....	54

	Page		Page
Charles Hanson (Poudre Supply) Canal—Colorado-		Drainage District No. 4—Boise.....	17, 21
Big Thompson.....	54	Dry Creek diversion dam—Fruitgrowers Dam....	90
Cheyenne division—Missouri River Basin..	169, 184, 187	Duchesne Feeder Canal—Moon Lake.....	193
Chico Canal—Central Valley.....	44	Duchesne tunnel—Provo River.....	235
Chief Joseph Dam.....	51	Dunlap diversion dam—Mirage Flats.....	166
Chimney Rock irrigation district—North Platte..	203		
Chinook division—Milk River.....	139	Eagle Tail Canals—Vermejo.....	308
Chowchilla water district—Central Valley.....	46	East and West Bench Unit—Vale.....	303
Chugach Electric Association—Eklutna.....	82	East Columbia Basin irrigation district—Columbia	
Clear Lake Reservoir and Channel—Klamath....	118	Basin.....	70
Coachella Canal—All-American Canal System....	24	East division—Umatilla.....	293
Coachella Valley County water district—All-		East Park Dam and Reservoir—Orland.....	217
American Canal system.....	24, 26, 333	East Portal Dam—Colorado-Big Thompson.....	54
Cody project—Shoshone.....	270	Easton diversion dam—Yakima.....	318
Cold Springs Dam and Reservoir—Umatilla.....	293	Echo Dam and Reservoir—Weber River.....	314
Coleman diversion dam—Newlands.....	195	Eden.....	63, 80
Collbran.....	53	Eklutna.....	82
Colorado-Big Thompson.....	54, 169	El Dorado irrigation district—Central Valley..	44, 46, 47
Colorado River aqueduct—Parker-Davis.....	229	Elephant Butte Dam—Rio Grande.....	137, 243, 248
Colorado River Dam Fund.....	28	Elephant Butte irrigation district—Rio Grande..	243, 245
Colorado River front work and levee system.....	61	Elliott Creek Feeder Canal—Colorado-Big	
Colorado River Indian Reservation.....	227	Thompson.....	54
Colorado River storage.....	63, 80, 228	El Paso County Water Improvement district No	
Colorado River, Texas.....	60	1—Rio Grande.....	243, 247
Columbia Basin.....	70	El Vado Dam—Middle Rio Grande.....	137
Conchas Reservoir—Tucumcari.....	291	Emery County—Colorado River storage.....	66
Conconully Dam and Reservoir—Okanogan.....	214	Emigrant Dam and Reservoir—Rogue River Basin..	255
Conejos water conservancy district—San Luis		Emmett irrigation district—Boise.....	17, 19, 21
Val.....	264	Enders Dam—Missouri River Basin.....	180
Contra Costa Canal—Central Valley.....	44	Enterprise irrigation district—Klamath, Minidoka.	120, 122
Contra Costa County water district—Central Val-		Ephraim division—Sanpete.....	265
ley.....	46	Estes Park, Colo.—Colorado-Big Thompson.....	55
Corning Canal—Central Valley.....	44	Estes powerplant—Colorado-Big Thompson.....	54
Courtland Canals—Missouri River Basin.....	175	Exeter irrigation district—Central Valley.....	46, 47
Cove powerplant—Deschutes.....	76		
Crane Prairie Reservoir—Deschutes and Arnold...	1, 76	Falcon.....	84
Crescent Lake Dam.....	74	Fallon unit—Buffalo Rapids.....	32
Crook County improvement district No. 1—Des-		Falls irrigation district—Michaud Flats and Mini-	
chutes.....	76	doka.....	136, 154
Crow Creek pump unit—Missouri River Basin....	177	Farmers Cooperative Ditch Co.—Boise.....	14
Culbertson Dam—Missouri River Basin.....	180	Farmers irrigation district—North Platte.....	200, 204
Curecanti Dam—Colorado River storage.....	63, 64	Farmers Union Ditch Co.—Boise.....	14, 16, 21
		Finney County Water Users Assn.—Garden City..	91
Dalton Gardens.....	75	Farewell irrigation district.....	189
Davis Dam and powerplant—Parker-Davis.....	229	Fire Mountain Canal and Reservoir—Paonia.....	228
Dead Ox Flat division—Owyhee.....	221	Fish Lake Dam—Rogue River Basin.....	256, 257
Deadwood Dam and Reservoir—Boise.....	13	Flaming Gorge Dam—Colorado River storage....	63, 64
Deaver irrigation district—Shoshone.....	270, 273	Flatiron Dam—Colorado-Big Thompson.....	54
Deer Creek Dam, Reservoir and powerplant—		Florida—Colorado River storage.....	65
Provo River.....	235	Folsom Dam and powerplant—Central Valley.....	44
Deer Flat Reservoir—Boise.....	13	Fort Belknap irrigation district—Milk River... 139, 142	
Deerfield Dam and Reservoir—Rapid Valley.....	238	Fort Clark unit—Missouri River Basin.....	179
Delano-Earlimart irrigation district—Central Val-		Fort Cobb division—Washita Basin.....	312
ley.....	46, 47	Fort Hall Indian Reservation.....	224
Delta Corss Channel and pumping plant—Central		Fort Laramie division—North Platte.....	199, 201, 206
Valley.....	44	Fort Peck.....	86, 169
Delta-Mendota Canal—Central Valley.....	44, 46	Fort Shaw division—Sun River.....	284
Derby Diversion dam—Newlands.....	195	Fort Sumner.....	87
Deschutes.....	1, 76, 100, 211	Foss division—Washita Basin.....	312
Dickinson unit—Missouri River Basin.....	178	Foster Creek division—Chief Joseph Dam.....	51
Dodson pumping unit—Milk River.....	139, 146	Four-Mile Dam—Rogue River Basin.....	256, 257
Donner Lake—Newlands.....	195		

	Page		Page
Franklin Canal, Bostwick division—Missouri River Basin.....	175	Harlan County Dam and Reservoir—Missouri River Basin.....	174
Franklin D. Roosevelt Lake—Columbia Basin.....	70	Harlem irrigation district—Milk River.....	139, 143
Frannie division—Shoshone.....	270	Harper and Little Valley unit—Vale.....	303
Fremont Canyon powerplant, Glendo unit—Missouri River Basin.....	181	Hayden Lake unit—Rathdrum Prairie.....	240, 241
Fremont-Madison irrigation district—Minidoka....	161	Haystack Equalizing Reservoir—Deschutes.....	76
Frenchman-Cambridge division—Missouri River Basin.....	180	Heart Butte unit—Missouri River Basin.....	182
Frenchman-Cambridge irrigation district—Missouri River Basin.....	181	Heart division—Missouri River Basin.....	178, 182
Frenchman Valley irrigation district—Missouri River Basin.....	180	Heart Mountain division—Shoshone.....	270, 272
Frenchtown.....	88	Helena-Great Falls division—Missouri River Basin.....	177, 183
Fresno Dam—Milk River.....	139, 147	Helena Valley unit—Missouri River Basin.....	183
Friant Dam and Reservoir—Central Valley.....	44	Hermiston irrigation district—Umatilla.....	293
Friant-Kern Canal—Central Valley.....	44, 46	Highland Hanover irrigation district, Bighorn Basin Division—Missouri River Basin.....	182
Fruitgrowers Dam.....	90	Highlands irrigation system—Yakima.....	317
Fryingpan-Arkansas.....	57	Highline Division—Stawberry Valley.....	282
Garden City.....	91	Hill irrigation district—North Platte.....	204
Garfield gravity division—Grand Valley.....	96	Hondo.....	102
Garland division—Shoshone.....	270, 271	Hoover Dam and powerplant—Boulder Canyon.....	28, 229
Garrison Dam.....	34	Hopkins Canal—Rogue River Basin.....	257
Garrison division—Missouri River Basin.....	184	Horsefly irrigation district—Klamath.....	118, 126
Gerber Reservoir—Klamath.....	118	Horseshoe Irrigation Co.—Sanpete.....	266
Gering-Fort Laramie irrigation district—North Platte.....	199, 201	Horsetooth Reservoir—Colorado-Big Thompson....	54
Gibson Dam and Reservoir—Sun River.....	284	Howard Prairie Dam—Rogue River Basin.....	255
Gila.....	25, 92, 340	Hudspeth County conservation and reclamation district.....	243
Glasgow division—Milk River.....	139, 148	Humboldt.....	103
Glen Canyon Dam—Colorado River storage.....	63	Hungry Horse.....	105
Glendive unit—Buffalo Rapids.....	32	Huntley.....	107
Glendo Unit, Oregon trail division—Missouri River Basin.....	181	Hyatt Prairie Reservoir—Rogue River Basin.....	255
Goleta County water district—Cachuma.....	37	Hyrum.....	110
Gooding division—Minidoka.....	154, 155	Idaho Power Company.....	14
Goshen irrigation district—North Platte.....	201	Imperial Dam and desilting works—All-American Canal System and Gila.....	24, 61, 92, 333
Granby Dam—Colorado-Big Thompson.....	54	Imperial irrigation district—All-American Canal System.....	24, 25, 333, 340
Grand Coulee Dam—Columbia Basin.....	70	Indian Creek Dike—Strawberry Valley.....	282
Grand division—Missouri River Basin.....	190	Inlet Canal—Belle Fourche.....	8
Grand Valley.....	96	Intake.....	112
Grand View irrigation district—Yakima.....	324	International Boundary and Water Commission....	84, 248
Granger irrigation district—Yakima.....	322, 324	Interstate Division—North Platte.....	199, 200, 205, 209
Granite Reef diversion dam—Salt River.....	258	Island Park Dam and Reservoir—Minidoka.....	161
Grants Pass.....	100	Ivanhoe irrigation district—Central Valley.....	46, 47
Grassy Lake Dam and Reservoir—Minidoka.....	161	Jackson Gulch Dam—Mancos.....	134
Gravity division—Minidoka.....	154, 157	Jackson Lake Dam and Reservoir—Minidoka....	154, 159
Green Mountain Dam—Colorado-Big Thompson....	54	Jamestown unit—Missouri River Basin.....	184
Greenfields division—Sun River.....	284, 286	Jefferson water conservancy district.....	76
Green Springs powerplant—Rogue River Basin.....	255	Jordan Narrows siphon—Provo River.....	235
Guernsey powerplant, Dam and Reservoir—North Platte.....	199	Kanopolis Dam and Reservoir—Missouri River Basin.....	177
Gunnison tunnel—Uncompahgre.....	300	Kansas-Bostwick irrigation district—Missouri River Basin.....	175
H & R W irrigation district.....	181	Kendrick.....	113, 169
Hammond.....	66	Kenilgravity Canal—Missouri River Basin.....	186
Hanover—Bluff unit, Bighorn Basin Division—Missouri River Basin.....	182	Kennewick division—Yakima.....	317
Hanover irrigation district, Bighorn Basin Division—Missouri River Basin.....	182	Kennewick irrigation district—Yakima.....	317
		Keswick Dam and powerplant—Central Valley....	44
		Keyhole unit—Missouri River Basin.....	184
		King Hill.....	117

	Page		Page
Kirwin unit—Missouri River Basin.....	185	Marys Lake—Colorado-Big Thompson.....	54
Kittitas division—Yakima.....	317, 318	Matanuska Electric Association—Eklutna.....	82
Klamath.....	118	McKay Dam and Reservoir—Umatilla.....	293
Klamath irrigation district.....	120, 124	McMillan Reservoir—Carlsbad.....	40
Kortes unit, Oregon trail division—Missouri River Basin.....	186	Means Canal—Eden.....	80
Kuna irrigation district—Boise.....	14, 16, 21	Medford irrigation district—Rogue River Basin....	255
La Barge.....	67	Medicine Creek Dam, Frenchman-Cambridge division—Missouri River Basin.....	186
Laguna Dam—Yuma.....	24, 332	Meeker-Driftwood unit, Frenchman-Cambridge division—Missouri River Basin.....	180
Lahontan Dam and powerplant—Newlands.....	195	Mesa County irrigation district—Grand Valley....	96
Lahontan-Swingle Bench pumping plant—Newlands.....	195	Mesa division—Yuma and Yuma auxiliary.....	333, 340
Lake Alice regulatory reservoir—North Platte....	199	Mesa Verde National Park.....	134
Lake Como Reservoir—Bitter Root.....	11	Metropolitan water district.....	24, 229, 235, 263
Lake Estes and Olympus Dam—Colorado-Big Thompson.....	54	Mexican Treaty.....	229, 243
Lake Granby Dam—Colorado-Big Thompson.....	54	Michaud Flats.....	136, 154, 224
Lake Minatare regulator reservoir—North Platte..	199	Middle Loup division—Missouri River Basin.....	188
Lake Tahoe outlet works—Newlands.....	195	Middle Rio Grande.....	137
Lake Walcott powerplant—Minidoka.....	157	Midvale irrigation district—Riverton.....	252, 254
Langell Valley division—Klamath.....	118	Midview Dam, Reservoir and lateral—Moon Lake..	193
Langell Valley irrigation district—Klamath.....	118, 126	Milburn diversion dam, Sargent unit—Missouri River Basin.....	188
Lewiston diversion dam—Central Valley.....	45	Milk River.....	139
Lewiston Orchards.....	129	Milner low-lift irrigation district—Minidoka.....	155
Lindmore irrigation district—Central Valley.....	46, 47	Minidoka.....	13, 154
Lindsay-Strathmore irrigation district—Central Valley.....	46, 47	Mink Creek Canal—Preston Bench.....	234
Lingle powerplant—North Platte.....	199	Minnesota siphon and pumping plant—Paonia....	228
Lingle Water Users Association—North Platte....	204	Mirage Flats.....	166
Lombard Canal, Crow Creek pump unit—Missouri River Basin.....	178	Missoula Valley.....	168
Lonesome Lake Reservoir, Lower Marias unit—Missouri River Basin.....	186	Missouri River Basin.....	169
Los Angeles.....	28	Missouri River Basin integrated system (power).....	56, 113, 190
Loup Basin reclamation district.....	189	Mitchell Butte division—Owyhee.....	221
Lovewell Dam and Reservoir, Bostwick division—Missouri River Basin.....	175	Modoc unit—Klamath.....	126
Lower Colorado River Authority—Colorado River, Texas.....	60	Montecito County water district—Cachuma.....	37
Lower Klamath Lake—Klamath.....	123	Monticello Dam and Reservoir—Solano.....	280
Lower Marias unit, Marias division—Missouri River Basin.....	186	Moon Lake.....	193
Lower Parks Reservoir—Balmorhea.....	6	Muddy Ridge Canal—Riverton.....	252
Lower Powder River irrigation district—Baker....	4	Namorf diversion dam—Vale.....	303
Lower Yellowstone.....	112, 131, 189	Nampa—Meridian irrigation district—Boise....	14, 16, 21
Lower Tule River irrigation district—Central Valley.....	46	Naponee Canal, Bostwick division—Missouri River Basin.....	175
Lucerne pumping plant, Owl Creek unit—Missouri River Basin.....	186	Navajo Dam—Colorado River storage.....	63, 64
Lugert-Altus irrigation district—W. C. Austin....	309	Nebraska-Bostwick irrigation district, Bostwick division—Missouri River Basin.....	175
Lyman—Colorado River storage.....	67	Nelson Dam and Reservoir—Milk River.....	139
Madera Canal—Central Valley.....	44, 46	New Dry Creek Ditch Co.—Boise.....	16, 21
Madera irrigation district—Central Valley.....	46, 47	Newlands.....	195
Main division—Klamath.....	120	Newton.....	198
Malin irrigation district—Klamath.....	122	New York irrigation district—Boise.....	14, 16, 21
Malta division—Milk River.....	139, 148, 150	Nimbus Dam and powerplant—Central Valley....	44
Mancos.....	134	North Branch Canal—Yakima.....	318
Mapleton irrigation district—Strawberry Valley...	282	North Dakota pumping division—Missouri River Basin.....	179
Marias division—Missouri River Basin.....	186	North Fork Water Conservancy District—Paonia..	228
Marshall Ford Dam—Colorado River.....	60	North Gila Valley irrigation district—Yuma and Gila.....	92, 333
		North Platte.....	199
		North Poudre Supply Canal and diversion dam—Colorado-Big Thompson.....	54
		North Side pumping division—Minidoka.....	154

	Page		Page
North unit—Deschutes.....	76	Prosser Dam and powerplant—Yakima.....	317
Northern Colorado water conservancy district—		Prosser irrigation district—Yakima.....	324
Colorado-Big Thompson.....	55	Provo River.....	235
Northport division—North Platte.....	199, 202, 207, 209	Public Service Co. of Colorado.....	96
Northwest unit pipeline—Grants Pass.....	100	Pumping Division—Klamath.....	122
Notus unit—Boise.....	17	Putah diversion dam—Solano.....	280
Ochoco.....	211	Quincy-Columbia irrigation district—Columbia	
Ogden-Brigham Canal—Ogden River.....	212	Basin.....	70
Ogden River.....	212	Rainbow Dam—Orland.....	217
Okanogan.....	214	Rams Horn tunnel—Colorado-Big Thompson.....	54
Olympus Dam—Colorado-Big Thompson.....	54	Rapid City, city of.....	187, 238
Orange Cove irrigation district—Central Valley...	46	Rapid Valley.....	238
Orchard City irrigation district—Fruitgrowers		Rapid Valley unit, Cheyenne division—Missouri	
Dam.....	90	River Basin.....	187
Orchard Mesa division—Grand Valley.....	96	Rathdrum Prairie.....	240
Oregon trail division—Missouri River Basin.....	181, 186	Rattlesnake Dam—Colorado-Big Thompson.....	54
Orland.....	217	Red Willow unit, Frenchman-Cambridge division—	
Osborne Canals, Webster unit, Solomon division—		Missouri River Basin.....	180
Missouri River Basin.....	192	Reeves County water improvement district No. 1—	
Outlook irrigation district—Yakima.....	322, 324	Balmorhea.....	6
Overland Canal—Paonia.....	228	Reservation division—Yuma.....	332
Owl Creek unit, Bighorn division—Missouri River		Rio Grande.....	243
Basin.....	186	Rio Grande River rectification.....	248
Owyhee.....	13, 221	Riverside irrigation district—Boise.....	14
Pacific Power & Light Co.....	56, 76	Riverton.....	169, 252
Pactola Dam and Reservoir, Rapid Valley unit—		Robles-Cositas Reservoir—Ventura River.....	305
Missouri River Basin.....	187	Robles diversion dam—Ventura River.....	305
Palisade County irrigation district—Grand Valley...	96	Rock Creek diversion dam—Bitter Root.....	11
Palisades.....	136, 154, 224	Rogue River Basin.....	255
Palmer substation—Eklutna.....	82	Roosevelt Dam and powerplant—Salt River.....	258
Palo Verde.....	61, 227	Roza division—Yakima.....	317, 320
Paonia.....	65, 228	Rudy Irrigation Canal Co.—Minidoka.....	155
Paradise Valley irrigation district—Milk River...	139, 144	Rye Patch Dam and Reservoir—Humboldt.....	103
Parker Dam.....	24, 229	“S” Canal regulating reservoir—Newlands.....	195
Parker-Davis.....	229	St. Francis unit, Upper Republican division—	
Pathfinder Dam—North Platte.....	186, 199, 200	Missouri River Basin.....	188
Payette division—Boise.....	13, 16	St. Mary Storage unit—Milk River.....	139
Pershing County water conservation district—		St. Vrain supply canal—Colorado-Big Thompson...	54
Humboldt.....	103	Sacramento canals unit—Central Valley.....	44
Phantom Lake Canal—Balmorhea.....	6	Sagouspe diversion dams—Newlands.....	195
Pilot Butte Dam and Reservoir—Riverton.....	252	Salmon Lake Dam and Reservoir—Okanogan.....	214
Pilot Knob Mesa—All American.....	24	Salt Lake aqueduct—Provo River.....	235
Pine Grove irrigation district—Klamath.....	122	Salt Lake Basin—Weber River.....	314
Pine River.....	232	Salt River.....	258
Pine River extension.....	65	San Diego, city of.....	24, 26, 262, 333
Pine View Dam and Reservoir—Ogden River.....	212	San Diego aqueduct.....	262
Pioneer irrigation district—Boise.....	14, 16, 21	San Diego project.....	262
Pishkun Reservoir and Canal—Sun River.....	284	San Luis Valley.....	264
Platoro Dam and Reservoir—San Luis Valley...	264	Sandy Gravity Canal, Lower Marias unit—	
Pole Hill tunnels, canal and powerplant—Colorado-		Missouri River Basin.....	186
Big Thompson.....	54	Sanpete.....	265
Porterville irrigation district—Central Valley...	46	Santa Barbara County water district—Cachuma,	
Post Falls unit—Rathdrum Prairie.....	240	Santa Maria.....	37, 267
Poudre Supply Canal—Colorado-Big Thompson...	54	Santa Maria.....	267
Preston Bench.....	234	Santa Ynez River water conservation district—	
Preston, Riverdale and Mink Canal Co.....	234	Cachuma.....	37
Prineville, city of—Deschutes.....	77	Sargent unit, Middle Loup division—Missouri	
Prospect diversion dam and canal—Eden.....	80	River Basin.....	188
Prospect Mountain tunnel—Colorado-Big Thomp-		Saucelito irrigation district—Central Valley.....	46, 47
son.....	54		

	Page		Page
Savage Rapids Dam—Grants Pass.....	100	Superior Canal, Bostwick division—Missouri River Basin.....	175
Savage unit, Yellowstone division—Missouri River Basin.....	189	Superior-Courtland diversion dam, Bostwick division—Missouri River Basin.....	175
Scandia unit, Bostwick division—Missouri River Basin.....	175	Sweetwater—North Platte.....	199
Scofield.....	268	Swift Current Dam—Milk River.....	139
Seedskaadee.....	66		
Seminole Dam and Reservoir—Kendrick.....	113, 186	Talent division—Rogue River Basin.....	255
Settlers irrigation district—Boise.....	14, 16, 21	Taylor Park Dam and Reservoir—Uncompahgre.....	300
Shadehill unit, Grand division—Missouri River Basin.....	190	Tecolote tunnel—Cachuma.....	37
Shadow Mountain Dam—Colorado-Big Thompson.....	54	Tehama-Colusa Canal—Central Valley.....	44
Shasta Dam and powerplant—Central Valley.....	44	Terminal Reservoir—Provo River.....	235
Shasta Dam area public utility district—Central Valley.....	47	Terra Bella irrigation district—Central Valley.....	46
Shasta View irrigation district—Klamath.....	122	Terry unit—Buffalo Rapids.....	32
Sherburne Lakes Reservoir—Milk River.....	139	Thief Valley Dam and Reservoir—Baker.....	4
Shirley unit—Buffalo Rapids.....	32	Three Forks division—Missouri River Basin.....	177
Shoshone.....	169, 270	Tiber Dam, Reservoir and powerplant, Lower Marias unit—Missouri River Basin.....	186
Shoshone extensions unit—Missouri River Basin.....	270, 272	Tieton division—Yakima.....	317, 326
Silt.....	66	Toston tunnel and canal, Crow Creek pump unit—Missouri River Basin.....	178
Sly Park unit—Central Valley.....	44, 46	Tracy pumping plant—Central Valley.....	44
Smith Fork.....	65	Transmission division—Colorado River storage.....	65
Smoky Hill division—Missouri River Basin.....	177	Transmission division—Missouri River Basin.....	190
Snipes Mountain irrigation district—Yakima.....	322, 324	Trenton Dam, Frenchman-Cambridge division—Missouri River Basin.....	180
Solano.....	280	Trinity River division—Central Valley.....	44
Solomon division—Missouri River Basin.....	185, 192	Truckee-Carson—Newlands.....	195
South Boise Mutual irrigation district—Boise.....	16, 21	Truckee-Carson irrigation district—Newlands, Truckee storage.....	195, 289
South Branch Canal—Yakima.....	318	Truckee storage.....	289
South Cache Water Users Association—Hyrum.....	110	Tucumcari.....	291
South Columbia Basin irrigation district—Columbia Basin.....	70	Tulare irrigation district—Central Valley.....	46
South division—Umatilla.....	293	Tule Lake division—Klamath.....	123
South Ogden conservation district—Ogden River.....	212	Tule Lake irrigation district—Klamath.....	124, 126
South Ogden Highline Canal—Ogden River.....	212		
South Platte Supply Canal—Colorado-Big Thompson.....	54	Umatilla.....	293
South Side Pumping division—Minidoka.....	154	Uncompahgre.....	300
Southern California Edison Co.....	29	Unit B irrigation district.....	92, 340
Southern San Joaquin municipal utility district—Central Valley.....	46, 47	Unity Dam and Reservoir—Burnt River.....	35
Spanish Fork division—Strawberry Valley.....	282	Upper Bluff irrigation district, Hanover-Bluff unit—Missouri River Basin.....	182
Spring City division—Sanpete.....	266	Upper Colorado River Basin Fund.....	68, 228
Spring Creek pumping plant—Yakima.....	324	Upper Klamath Lake—Klamath.....	118
Springville irrigation district—Strawberry Valley.....	282	Upper Republican division—Missouri River Basin.....	188
Springville-Mapleton division—Strawberry Valley.....	282	Upper Snake River storage—Minidoka.....	154
Stanfield irrigation district—Umatilla.....	293, 295	Upper Van Brimmer drainage district—Klamath.....	122, 126
Station Creek tunnel—Preston Bench.....	234	Utah Lake division—Provo River.....	235
Stone Corral irrigation district—Central Valley.....	46, 47		
Stony Gorge Dam—Orland.....	217	Vale.....	303
Storage division—North Platte.....	200, 202, 208, 209	Vale Oregon irrigation district.....	303
Storage division—Yakima.....	317, 321	Vallecito Dam and Reservoir—Pine River.....	232
Strawberry Valley.....	282	Valley division—Yuma.....	332, 336
Succor Creek division—Owyhee.....	221	Vandalia Dam—Milk River.....	139
Summerland water district—Cachuma.....	37	Vaquero Dam—Santa Maria.....	267
Summit City public utility district—Central Valley.....	47	Ventura River.....	305
Sun River.....	284	Vermejo.....	308
Sunnyside division—Yakima.....	317, 324		
Sunnyside irrigation district—Klamath.....	122	W. C. Austin.....	309
Sunnyside irrigation district—Yakima.....	324	Wapato division—Yakima.....	317
Sunnyside Valley irrigation district—Yakima.....	324	Warm Springs irrigation district—Vale.....	303
		Warm Springs Reservoir—Vale.....	303

	Page		Page
Washita Basin.....	312	Willow Creek Dam—Colorado-Big Thompson.....	54
Washoe County water conservation district—		Willow Creek unit—Vale.....	303
Truckee storage.....	289	Willwood division—Shoshone.....	270, 272
Weber Basin.....	313	Wind River diversion dam—Riverton.....	252
Weber-Provo diversion canal—Provo River, Weber		Wippel pumping plant—Yakima.....	318
River.....	235, 314	Woodston diversion dam, Solomon division—Mis-	
Weber River.....	314	souri River Basin.....	192
Webster unit, Solomon division—Missouri River		Wyoming Canal—Riverton.....	252
Basin.....	192		
Wellsville Canal—Hyrum.....	110	Yakima.....	317
Wellton-Mohawk division—Gila.....	92	Yakima-Benton irrigation district.....	320
West division—Umatilla.....	293	Yakima River siphon.....	318
West extension irrigation district—Umatilla.....	293, 297	Yakima-Tieton irrigation district.....	326
Western Heart River irrigation district, Heart		Yellowstone division—Missouri River Basin.....	189
Butte unit—Missouri River Basin.....	183	Yellowstone Feeder Canal—Moon Lake.....	193
Westland irrigation district—Umatilla.....	295	Yuma.....	229, 332, 340
Whalen diversion dam—North Platte.....	199	Yuma Auxiliary.....	92, 340
Wickiup Dam and Reservoir—Deschutes.....	76	Yuma Mesa division—Gila.....	92
Wilder irrigation district—Boise.....	14, 16, 21		
Williston.....	316	Zillah irrigation district—Yakima.....	324
Willow Creek Dam and Reservoir—Sun River.....	284	Zurich irrigation district—Milk River.....	139, 145



