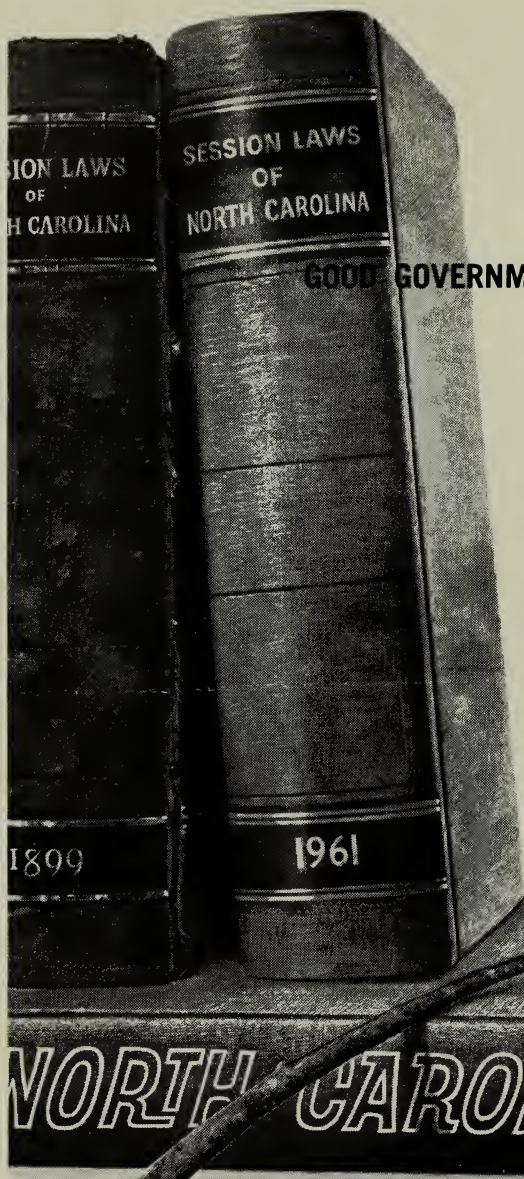


1960 - 1962

19th
Biennial Report
of the
North Carolina
Department
of

CONSERVATION & DEVELOPMENT





GOOD GOVERNMENT IS A HABIT IN PROGRESSIVE NORTH CAROLINA

In this century, no state has built a better reputation for integrity and sound fiscal policy than North Carolina.

North Carolina's Good Government has produced:

1. Highest credit rating—AAA bonds.
2. One of the lowest debts of the 50 states—state and local debts combined on a per capita basis.
3. A state law prohibiting deficit spending.

This good government provides vital services to its people and its industries. These services mean *profit* to you. For the future look wisely at North Carolina.

For more information, write or call Governor Terry Sanford, Raleigh, N. C. You can do so in confidence.

... where Good Government is a habit and Greater Opportunity a fact

To His Excellency
The Honorable Terry Sanford
Governor of North Carolina

In compliance with the Statutes of North Carolina,
I am transmitting herewith the report of the Department
of Conservation and Development for the biennium
ending June 30, 1962.

Respectfully,

Hargrove Bowles, Jr.
Director

THE COVERS

North Carolina advertisements representing of those produced by the Advertising Division and published nationally during this biennium appear on inside front and back covers. During the biennium there were 424 display advertisements in 109 newspapers and magazines and 1,824 air announcements over 27 radio and 17 TV stations.

BOARD OF CONSERVATION & DEVELOPMENT

(As of June 30, 1962)

Governor Terry Sanford, Chairman

R. Walker Martin, Raleigh

1st Vice Chairman

Dr. Mott P. Blair, Siler City

2nd Vice Chairman

John M. Akers, Gastonia

Robert E. Bryan, Goldsboro

Mrs. B. F. Bullard, Raleigh

Daniel D. Cameron, Wilmington

Mrs. Fred Y. Campbell, Waynesville

Dr. John Dees, Burgaw

William P. Elliott, Sr., Marion

E. Hervey Evans, Jr., Laurinburg

E. R. (Ned) Evans, Ahoskie

E. D. Gaskins, Monroe

Andrew Gennett, Asheville

Luther W. Gurkin, Jr., Plymouth

Woody R. Hampton, Sylva

Charles E. Hayworth, High Point

Gordon C. Hunter, Roxboro

Roger P. Kavanagh, Jr., Greensboro

Carl G. McCraw, Charlotte

Lorimer W. Midgett, Elizabeth City

Ernest E. Parker, Jr., Southport

R. A. (Jack) Pool, Clinton

Eric W. Rodgers, Scotland Neck

Robert W. Scott, Haw River

James A. Singleton, Jr., Red Springs

J. Bernard Stein, Fayetteville

Paul H. Thompson, Fayetteville

Charles B. Wade, Jr., Winston-Salem

Mrs. Gladys J. Gooch, Secretary to the Board

COMMERCIAL FISHERIES ADVISORY BOARD

A. W. Daniels, Cedar Island &

Charlotte, Chairman

Percy G. Grant, Holly Ridge

Garland Fulcher, Oriental

Clyde Potter, Belhaven

Lewis Hardee, Southport

Monroe Gaskill, Cedar Island

Ralph Meekins, Wanchese

DEPARTMENT OF CONSERVATION & DEVELOPMENT

Hargrove Bowles, Jr., Director

Roy Wilder, Jr., Assistant Director

John L. Allen, Jr., Assistant to the Director

DIVISIONS AND DIVISION HEADS

Advertising Charles J. Parker

Commerce and Industry James R. Hinkle

Commercial Fisheries C. Gehrman Holland

Community Planning Robert D. Barbour

Forestry Fred H. Claridge

Geodetic Survey P. C. Doran

Mineral Resources Jasper L. Stuckey

State Parks Thomas C. Ellis

Auditor Sidney C. Holden

Public Information Wade H. Lucas

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FOREWORD

The mission of the Department of Conservation and Development is to conserve and develop and to promote the wise use of the natural resources of North Carolina for the common good of all her people.

This report is an account of the department's stewardship for the biennium ending June 30, 1962

In the interest of readability, much detail has been omitted. Those persons wishing more information about specific phases of the department's program need only to contact the Department or the Division directly concerned.

BOARD OF CONSERVATION AND DEVELOPMENT

The Board of Conservation and Development during the first year of this biennium was composed of eighteen members. The 1961 General Assembly, through enactment of an amendment to Section 113-5 of the General Statutes, increased the membership of the Board to twenty-eight persons effective July 1, 1961. Fourteen of the Board members serving as of the close of the biennium, June 30, 1962, were appointed for a term of two years each and fourteen members were appointed for a term of four years each. Upon expiration of their respective terms, appointments to the Board will be for a term of four years each.

STATE ADVERTISING

The scope of the State's advertising program was considerably broadened in this biennium.

North Carolina cooperated heartily with the "Visit U. S. A." program of the U. S. Travel Service, headed by Voit Gilmore, former member of the State Advertising Committee. With the enthusiastic support of Governor Terry Sanford and active cooperation of the Travel Council of North Carolina, the Advertising Division mounted the first State Travel Mission to Europe from the U. S. A. This Mission, headed by Chairman Charles B. Wade, Jr., of the Advertising Committee of the Board of Conservation and Development, was comprised of 41 leaders of the travel and allied industries. Completely at their own expense, they put in 12 days of intensive selling for North Carolina's travel attractions in 5 European countries, Feb. 25-March 8, 1962.

By being first to support our nation's campaign to reduce our foreign trade imbalance through promoting more inbound tourist traffic, North Carolina won national and international publicity for its travel attractions. The pioneer Travel Mission paid off, also, in a series of visits by trade and professional groups, one of which was the 2-day tour of our mountain vacationlands by 60 members of the Women's Press Club of London in June 1962.

The groundwork was laid by the Travel Mission for another historic first in the travel industry. Thirty European tour operators and transportation officials accepted invitations to visit North Carolina in person and participate in a 6-day "Governor's Tour of Variety Vacationland". This was scheduled for Oct. 7-12, 1962.

Promotional operations were also broadened within the United States to use new media in support of conventional newspaper and magazine advertising.

TRAVEL SHOW PARTICIPATION

For the first time, North Carolina participated in major travel shows. With the cooperation of the Travel Council of North Carolina, the Variety Vacationland exhibit dominated the Ohio Valley Travel Show in Cincinnati in March 1961. Governor Terry Sanford officially opened the show, and Miss North Carolina was featured. The 30-foot North Carolina exhibit, built around three large illuminated color scenes, was put to further use in 1961 at the **Redbook** Magazine show in the New York area, at the Jaycee National Convention in Atlanta, and the International Trade Fair in Charlotte. The same exhibit was re-used in 1962 on a four-show circuit including Washington, New York, Cincinnati and Charlotte.

Use of television was extended in 1962 with the State's first major scheduling of this media. One-minute vacation announcements were used over 17 stations which are listed in the statistical summary, as are print media.

LITERATURE DEMAND

Requests for North Carolina literature set new records. Sharply increased requests from travel information agencies for literature in bulk were honored insofar as possible, but even with increased printings supplies were inadequate. We distributed 3,621,358 pieces of literature in this biennium, an increase of 957,747 over the preceding 2-year period.

Outstanding national publicity included the 43-page story entitled "North Carolina—Dixie Dynamo" in the February 1962 NATIONAL GEOGRAPHIC, which was profusely illustrated in full color, and the 32-page special section entitled "Dynamic North Carolina" in the March 1962 issue of INDUSTRIAL DEVELOPMENT.

Special projects included production of the official program for the first International Trade Fair in 1961, and assistance with "North Carolina Day" at the Seattle World's Fair, June 23, 1962.

The new coastal fishing movie "From Kitty Hawk to Calabash", released in 1961, was a sensational success. It was introduced by a coast-to-coast showing on the NBC network. One hundred prints were procured for distribution through Modern

Talking Picture Service, Inc., and during this biennium there were 3,076 audience and 223 TV showings.

Our "Variety Vacationland" picture, released during the preceding biennium, continued to get good reception, and had 4,995 audience showings and 211 TV showings during the biennium.

Through the generosity of the Southern Bell Telephone Company, a new documentary film entitled "North Carolina" was added in 1961. This 27-minute movie covering industrial and cultural features of the State as well as its vacation attractions, was shown to 742 audiences. The Telephone Company donated 50 prints, which were distributed through the film library of the University of North Carolina.

Production was begun on a new vacation picture especially for television in the spring of 1962. This picture is being produced under contract by the Bennett Advertising Agency of High Point and is scheduled for release early in 1963.

OPERATIONAL CHANGES

Effective July 1, 1961, the Bennett Agency took over the State Advertising Contract under a 2-year agreement, succeeding Ayer and Gillett of Charlotte, which had the contract for 4 years. With the change to the Bennett Agency, basic changes in operations whereby the Agency was charged with greater responsibility for promotion as well as paid advertising were inaugurated.

(Typical State advertisements published during the biennium are reproduced on the covers of this report.)

Other changes in the organization of the Advertising Division also reflected new requirements for the State's advertising and informational programs. In order to permit the Staff of the Advertising Division to concentrate more on travel information, general nature news duties formerly performed by it were assumed by the Public Information Officer of the Department of Conservation and Development, the Press Secretary to the Governor, and other public relations specialists who were not in operation when the Advertising Division was designated as and operated primarily as the State News Bureau. Recognizing its changed emphasis, the working designation of this section became the State Travel Information Division.

Administration of the Honorary Tar Heel organization performed by the State News Bureau for the Governor since the formation of this group of Friends of North Carolina during the Cherry administration, was placed in the hands of the Assistant Director of the Department of Conservation and Development in 1961. This freed Advertising Division personnel further for their primary responsibility of being the State's travel information agency.

Tax revenues from the travel-serving industry continued to increase during the biennium, and the industry as a whole averaged 4% annual increase in dollar volume, making it the third largest industry in the State.

The appropriation for the biennium was \$1,092,442, of which \$800,000 was allocated to paid advertising prepared and placed by the advertising agency holding the State contract.

Charles Parker, who has headed the Division since 1940 (with an interruption for military service) continued both as Advertising Director and chief of travel information service during the biennium. Section heads were Evelyn Covington, administrative assistant and supervisor of travel inquiry service and special projects, and Miriam Rabb, travel editor and supervisor of photographic distribution and filing.

MEDIA LIST

North Carolina's travel advertising was published or broadcast as follows:

TELEVISION

Atlanta, Ga.—WLW-A, WSB-TV
Baltimore, Md.—WBAL-TV, WMAR-TV
Cincinnati, Ohio—WLW-TV, WKRC-TV
Columbus, Ohio—WLW-C, WTVN-TV
Dayton, Ohio—WLW-D
Huntington, West Va.—WSAZ-TV

Indianapolis, Ind.—WISH-TV
Louisville, Ky.—WAVE-TV
Philadelphia, Pa.—WFIL-TV
Pittsburgh, Pa.—KDKA-TV
South Bend, Ind.—WNDU-TV
Washington, D. C.—WMAL-TV, WRC-TV

RADIO

Atlanta, Ga.—WAKE, WPLO, WSB
Baltimore, Md.—WCAO, WCBM
Charleston, West Va.—WCHS
Cincinnati, Ohio—WCKY, WLW
Columbus, Ohio—WBNS, WTVN
Dayton, Ohio—WING
Indianapolis, Ind.—WIBC, WIRE

Louisville, Ky.—WAKY, WKLO
Orlando, Fla.—WHOO
Philadelphia, Pa.—WCAU, WPEN
Pittsburgh, Pa.—KDKA, WEEP, WJAS
Richmond, Va.—WLEE, WRVA
South Bend, Ind.—WSBT
Washington, D. C.—WPGC, WRC, WWDC

MAGAZINES

American Motorist
American Weekly
Better Homes & Gardens
Christian Herald
Coronet
Detroit Motor News
Everywoman's Family Circle
Field & Stream
Golf Digest Annual
Grade Teacher
Guns & Hunting
Holiday
Instructor
Keystone Motorist
McCall's
National Geographic
New York Motorist
New Yorker

Ohio Motorist
Outdoor Life
Pennsylvania Motorist
PGA Championship Annual
Pittsburgh Automobilist
Redbook
Road & Track
Salt Water Sportsman
Saturday Evening Post
Scholastic Teacher
Sports Afield
Sports Car
Sports Illustrated
Tradition
True
TV Guide
Woman's Day

NEWSPAPERS

All Florida Sunday supplement
Army Times
Atlanta Journal-Constitution
Baltimore American
Baltimore Sun
Birmingham News
Boston, Christian Science Monitor
Charleston, W. Va., Gazette Mail
Charleston, S. C., News Courier
Chicago American
Chicago Sun-Times & Daily News
Chicago Tribune
Cincinnati Enquirer
Cincinnati Post-Times Star
Cleveland Plain Dealer
Cleveland Press & News
Columbus Dispatch
Dayton News
Detroit Free Press
Detroit News
Detroit Times
Ft. Lauderdale News
Fort Wayne Journal Gazette
Grit
Indianapolis Star
Indianapolis Times
Louisville Courier & Journal

Miami Herald
Miami News
Milwaukee Journal
Milwaukee Sentinel
New York Herald Tribune
New York Journal American
New York Mirror
New York News
New York Times
New York World Telegram
Newark News
Orlando Sentinel Star
Philadelphia Inquirer
Pittsburgh Post & Gazette & Sun Telegraph
Pittsburgh Press
Richmond News-Leader
Richmond Times-Dispatch
Roanoke Times & World News
South Bend Tribune
St. Petersburg Times
Tampa Tribune
Toledo Blade
Washington News
Washington Post
Washington Star
Wilmington (Del.) News-Journal

INDUSTRIAL ADVERTISING

MAGAZINES

Blue Book of Southern Progress
Business Week
Dun's Review & Modern Industry
Factory
Fortune
Industrial Development

Newsweek
Plant Location
Site Selection Handbook
Time
U. S. News & World Report

NEWSPAPERS

Chicago American
Chicago News
Chicago Sun-Times
Chicago Tribune
Journal of Commerce

New York Herald Tribune
New York Journal American
New York Times
New York World Telegram Sun
Wall Street Journal

The statistical summary follows:

BIENNIUM JULY 1, 1960—JUNE 30, 1962

DISPLAY ADVERTISING

Travel advertising was published or broadcast as follows:

Media	No. Advertisements	Total Circulation	Time & Cost for/Space
Magazines	133 in 35 publications	188,945,175	\$197,417.75
Newspapers	216 in 53 publications	128,616,856	96,555.41
Total Print	349 in 88 publications	317,562,031	\$293,973.16
Radio	1,209 announcements over 27 stations		\$ 34,804.37
Television	615 announcements over 17 stations		62,125.58
Total Air	1,824 announcements over 44 stations		\$ 96,929.95
Total Travel			\$390,903.11

Industrial advertising was placed as follows:

Magazines	42 in 11 publications	48,008,018	\$210,938.25
Newspapers	33 in 10 publications	27,186,559	59,510.26
Total Industrial	75 in 21 publications	75,194,577	\$270,448.51
Total Production			\$ 60,926.57
Grand total			\$772,278.19

INQUIRIES SERVICED

Received	Keyed	Non-Keyed
398,290	175,202	223,088

PUBLICATIONS

No. Subjects	Produced	No. Copies	Distributed No. Copies	Inventory (approximate)
202		2,277,157	3,621,358	528,932 (average)

NEWS, FEATURE & PICTURE OPERATIONS

News & Feature Releases			TV-Radio Shows
229			130
Still Photography		Motion Pictures	
Prints Distributed		Audience Showings	TV
12,266		9,019	767

SPECIAL PROJECTS

(Conventions, displays, other special services)

No. Projects	Literature Used	Homeseeker Inquiries
459	301,030	8,381

COMMERCE AND INDUSTRY

Capital expenditures committed for new and expanded manufacturing facilities during this report period, as will be seen by the tabulation given below, continued the pace established during the preceding record biennium.

Total expenditures announced for the biennium of 1960-62 for new plants and expansions were \$498,390,000 as compared with \$503,876,000 for the immediately preceding period.

Prospective new employment indicated from the 1960-62 projects, numbering 64,277 jobs, lacked less than 300 of being equal to the 64,567 of the preceding biennium, and the estimated payroll of the new projects was approximately \$3,000,000 above that of the previous two-year period.

Expansions of existing plants set a new record during this report period with investments exceeding those of the previous biennium by more than ten percent.

The following tabulation presents the record of new plants and expansions for the biennium 1958-60 and 1960-62.

BIENNIAL SUMMARIES

1958-60; 1960-62

	New	Investments	Payroll	Employees
1958-'60	423	\$252,532,000	\$124,391,000	38,448
1960-'62	379	219,989,000	117,586,000	35,692
	Expansions			
1958-'60	634	\$251,344,000	\$ 85,442,000	26,119
1960-'62	633	278,401,000	95,245,000	28,585
	New and Expansions			
1958-'60	1,057	\$503,876,000	\$209,833,000	64,567
1960-'62	1,012	498,390,000	212,831,000	64,277

ADMINISTRATION

The Division has continued to be faced by the problems created by the turnover within its staff. There has been an increasing demand for Industrial Development Representatives during the last several years from all over the country as well as within the State.

Changes in staff confront the Division with a continuing training job since the personnel which is lost has had experience and it is usually necessary to take on replacements who must be trained.

During the past two years, the following have resigned to accept other development positions or to enter private business: Robert E. Leak, J. D. Little, Richard D. Mauney, Ernest W. Ross, and Marshall T. Wills. W. H. Riley retired after some 30 years with the State.

The following have come with the Division during the report period: Fred G. Arnold, W. W. Barnes, Albert H. Calloway, C. W. Garber, Russell G. Hanson, Eugene B. Harris, Glenn D. Hunt, Harold R. Love, Lawrence B. McGee, John M. Oliver, and Horace A. Smith.

Changes in the top administrative office of the Division have been even more frequent than among staff members. The current Administrator of the Division, James R. Hinkle, had held this office for only two months before the end of the biennium. He succeeded W. R. Henderson, who resigned to enter private business, on May 1, 1962. Mr. Henderson had served since September 15, 1959.

Since 1954, the Division has had eight administrators. Most of those who resigned have either gone into private business or have accepted higher paying positions in the same field.

GENERAL

S. I. R. Trophy: In 1960, the Society of Industrial Realtors, of the National Association of Real Estate Boards, offered a special trophy for the State or Canadian Province having the most effective industrial development program.

Our Division feels quite honored that the trophy was awarded to North Carolina by a panel of five highly qualified and independent judges. The State was the runner-up in 1961.

Executive Industrial Development Conference: The first of what has been planned as an annual Executive Industrial Development Conference was held at the Institute of Government in Chapel Hill on June 1-2, 1961. The program was designed especially for those who are actively in the field of industrial development with the idea of improving their effectiveness in obtaining and working with prospects.

Registration for this conference was 91, consisting of the Staff of the Division, local developers, and representatives of development agencies with full time personnel stationed in North Carolina.

Plans were being made at the close of this report period for the second conference to be held in Raleigh on October 3-4, 1962. Indications are that there will be more than 100 in attendance.

Triangle Area Executive Tour: At the invitation of the sponsors, the Division participated in Triangle Area Executive Tour on May 25-26, 1961. The tour was made up of a selected group of more than 100 executives of large nationally known firms and their wives.

Five representatives of the Division accompanied the busses which conducted the visitors around Raleigh and The Research Triangle Area. Business and professional men of Raleigh were the sponsors.

Trade Promotion: The Division has consistently held the view that it is equally as important to contribute to the fullest extent possible to the success and growth of its existing industries as to attract new plants to the State.

Consequently, a substantial part of its activities is directed toward this purpose. Trade development aids, both domestic and foreign, are important features of the program aimed toward assisting industry operating within the State.

In addition to the Trade Fair, the Division has sponsored numerous other features in interest of helping to expand the markets for North Carolina products. Representatives of the Division have taken part in and encouraged the attendance of North Carolina manufacturers at various sales clinics. Considerable new business for firms within the State has resulted.

Foreign Trade—The Division has worked closely with the Federal government in its drive to expand the foreign trade of the Nation.

An Export Development Conference and Workshop was held by the Division at Chapel Hill on March 24, 1962. A panel of speakers explained the wide field of opportunities for export trade to a group of 162 businessmen. Pointers were given on how to sell abroad, shipping requirements, and export financing. Secretary of Commerce, Luther H. Hodges, addressed the conference at lunch.

Five volunteer citizens boosted trade between North Carolina and Western Europe on trips during the summer months of 1962. The individual missions were carried out with no cost to the State. These "goodwill ambassadors" included Col. H. H. Dillard, Dr. Thomas Thurston, Bernard Stein, W. H. Deitrick, and J. B. Langston.

Furniture and Hosiery Missions—Two groups from the Hickory area, representing the furniture and hosiery industries went on trade development missions during the first half of 1962. The furniture group, numbering 24, made their trip in February. Thirty-six representatives of the hosiery industry toured England and other countries on the continent in June.

Countries visited by the Hickory groups included England, France, West Germany, Sweden, and Italy. The Division assisted in making arrangements for the two missions.

Domestic Market Expansion—The Division has scheduled a Government Sales Conference and Clinic in Chapel Hill on October 23-24, 1962.

Top buyers of Federal and State purchasing agencies are scheduled to attend the conference-clinic which will be unique in not including any speeches but will be of the personal interview type. All the armed services, the General Services Administrations, the National Aeronautics and Space Administration, the U. S. Department of Commerce, Small Business Administration, N. C. Division of Purchase and Contract, and other groups will be represented.

The Division constantly serves North Carolina's manufacturers by referring inquirers for various types of articles to firms within the State which are equipped to produce such items.

Industrial Missions: Three special "industry hunting" missions were conducted by the Division during the biennium, all during the early part of the period. Another was scheduled for early 1962 but was postponed and later cancelled because of conflicts.

Chicago Mission—The largest mission during the biennium was to the Chicago area on October 4-6, 1960. A total of 82 State, local and private development representatives participated. This mission was led by Governor Sanford.

Calls were made on some 250 leading industrialists and several new prospects were developed. Some of the calls were on firms with which contacts had already been made. It is of interest to note that one executive was so impressed with the visit of the State representatives that he telephoned almost two years later to advise that he was ready to look over sites for an expansion program.

Limited Mission—A smaller mission was carried out by three Staff Members to some of the larger Wisconsin industrial centers during the week of March 13-17, 1961. This mission was largely for the purpose of calling on a considerable number of industrialists with whom the Division was already in contact, as well as developing new prospects. Thought is being given to additional missions of this type.

Ohio Valley Mission—This mission, covering the period May 21-26, 1961, involved some new procedures from those used previously in that the group moved from one city to another, with a coverage of five metropolitan areas.

The itinerary started at Pittsburgh and moved by rail through Columbus and Dayton, thence to Indianapolis, and wound up in Cincinnati.

The number of participants was restricted to 35 because of limited travel accommodations. During the tour, the group made some 400 contacts, of whom some 67 manifested an interest in North Carolina.

Trade Fair: North Carolina, on October 12-21, 1961, became the first State to sponsor a Trade Fair of the type as held in Charlotte on those dates.

The Fair has been widely proclaimed as an outstanding success, its greatest contribution being the opening of new outlets for the products of the State.

There were more than 300 exhibitors and around 200,000 visitors from 36 states and 32 foreign countries. Initial sales attributed to exhibits totaled \$322,775 and exhibitors established more than 14,000 prospects including 5,286 from North Carolina, 9,051 from other states, and 145 from foreign countries.

Cooperation from the City of Charlotte, Mecklenburg County and the various committees, including in particular Gen Paul R. Younts, Chairman of the executive committee, contributed in an important way to the success of the Fair.

Soon after the 1961 Fair, it was decided to repeat the event on an every other year basis, and consequently the second was scheduled for April 27-May 4, 1963.

Plans are currently being made for a mission consisting of some 30 to 40 private citizens to tour some 12 Western European countries to boost the Trade Fair this fall. The group is scheduled to leave Charlotte late in October. Each individual will travel at his own expense.

COMMUNITY DEVELOPMENT

This Section's program is designed primarily to serve the development activities of the communities, existing industry, and individuals and groups wishing to establish new enterprises.

During the biennium, the Section sponsored community evaluation studies under the title of "Geared For Progress". These inventories have resulted in the pinpointing of shortcomings which have inspired special projects designed to make the communities involved more attractive to industry and as places in which to live.

The Section will shortly assume the task of expanding community data for the files of the Division and as tools for the Development Representatives and other agencies seeking to attract industry to the State.

Industrial Development Conferences: During this biennial report period seven conferences were held over the State. Total attendance was estimated at 1,200. These conferences were designed primarily to improve the techniques of finding and handling prospects and also for aid to the communities in creating the best possible business climate. The conferences were held in various parts of the State for the convenience of the participants.

Area Redevelopment Review Board: As a member of the State Review Committee for ARA, the Section has reviewed all project proposals for ARA assistance and all Over-all Economic Development Programs submitted for approval. The Section has been represented in each beginning of an Over-all Economic Development Program in the various counties.

Special Aids to Existing Industry: Numerous programs were carried out during the biennium in behalf of existing industries, both to promote a better appreciation of their contribution to the communities and the State, and to assist in attracting new business.

Industry Appreciation Week—The Section cooperated with the North Carolina Association of County Commissioners in promoting Industry Appreciation Week on November 28-December 3, 1960. This is a worthwhile feature and should be given careful consideration as an annual event.

Southeast Exhibit of Business Opportunity—The Section represented the State at this event in Orlando, Florida, in April, 1961, and participated in planning and publicity. As a result, ten North Carolina manufacturers exhibited and many more attended in search of new business.

Export Conference—More than 200 persons attended an export conference on March 24, 1962, at Chapel Hill for the purpose of learning more about the opportunities in foreign trade for North Carolina manufacturers. Secretary of Commerce Luther H. Hodges was the main speaker at the conference luncheon.

As a result of this conference, several manufacturers developed a greater interest in the potentials of the export field and are investigating the field more closely.

Out of this conference grew the idea of a two-day Government Procurement Conference and Clinic to be held at Chapel Hill in early October. This is shaping up as a significant event.

Made in North Carolina Week—North Carolina-made products were spotlighted to the people of the State during the week of June 10-16.

Special exhibits of North Carolina's manufactured products in retail stores and in other public places, and numerous other means were used to familiarize the public with the products of the State's plants. The press, radio, TV, and outdoor signs publicized the wide variety of items processed in North Carolina. Restaurants and stores displayed and advertised these products widely.

The special week received the endorsement and active cooperation of the N. C. Merchants Association, the N. C. Association of Quality Restaurants, the N. C. Chain Store Council, Chambers of Commerce, and numerous other organizations. Consideration is being given to the continuation of the week as an annual event.

Industrial Financing: Increasing competition for manufacturing plants is constantly focusing greater attention on financing plans. The ready availability and terms of long-term credit figure importantly in the field of industrial development.

Special financing plans for industrial buildings under a variety of terms are available in virtually all the States, and in some cases equipment is also financed. There is a wide range in the sources of such funds. A survey by a nationally circulated publication some months ago showed that 19 states permit the issuance of either general or revenue bonds by cities or counties for the financing of industrial buildings.

Recognizing the importance of financing to the development program, a banker with long experience was added to the Staff early in 1961. Numerous existing plants were able to continue operations and to expand as a result of this service. Financing plans worked out in the Division have helped to bring new plants to the State.

In order to try to determine the influence of public bonds and other methods of financing on the attraction of industry, Governor Sanford has appointed a special committee with Dr. Joe S. Floyd, of the School of Business Administration at the

University of North Carolina, as Chairman. The Division of Commerce and Industry has cooperated fully with this Committee.

It is hoped that the Committee will present a proposal that will be helpful to the North Carolina development program and that it will be generally acceptable.

FOOD INDUSTRIES

In June, 1962, the Food Industries Section was created at the direction of Governor Sanford to coordinate a greatly accelerated program to promote more food industries utilizing the products of North Carolina's farms and fisheries.

Preliminary plans for this activity were announced at the April, 1962, meeting of the Board by Governor Sanford who made possible the employment of two additional food specialists, giving the Section three full-time representatives in this field.

Lewis F. Dunn who has been with the Division for about three years specializing in a limited program of the same type, was named chief of the Section. Glenn D. Hunt and Horace A. Smith were employed to round out the staff.

An aggressive program has been prepared and the Section is rapidly getting into full swing. It will work in full cooperation with the Department of Food Science at State College, the Division of Markets of the N. C. Department of Agriculture and other agencies interested in the program. Attention will be directed toward attracting branch plants of large companies, to the expansion of existing plants, and the establishment of new facilities by local entrepreneurs.

One feature which it is believed will focus considerable attention on North Carolina's food processing potentials is a Food Editors' Luncheon on November 13 for editors of newspapers and magazines. North Carolina foods will be featured. Invitations have been sent by Governor Sanford to 165 editors.

RESEARCH AND STATISTICS

With the increase of activities of the Division, there has been a steadily growing demand on the Research and Statistics Section for services of various types.

In order to meet the increasing demand for supporting development data, it was necessary to add another statistician to the staff at the beginning of the biennium in the person of Miss Virginia Satterfield. This relieved, to a considerable extent, the pressure on the Section and enabled it to render services vital to the development program.

This Section collects, collates, and files for ready reference most of the data required to support the industrial development program. These data include not only those of State-wide nature but also statistics and general information on the various counties and municipalities. Its basic service is in furnishing facts for the Division's prospects. Considerable information is also furnished to local development agencies, plant locating services, and other development agencies.

Progress Statistics: The Section maintains a continuing record of the industrial growth of the State by assembling figures on new industries and the expansion of existing plants. Records of this nature make it possible to measure the rate of the State's industrial growth, the trends in the various classifications, and give a basis on which future programs can be planned.

Mailing Lists: The preparation of mailing lists is a never-ending undertaking and has become a major activity of the Section. Lists for various uses are almost constantly under preparation. Some of the lists are assembled for other State agencies as well as the Division.

Miscellaneous: The Section handles a considerable volume of general inquiries. Hundreds of questions from school children are among those answered.

From this office also comes considerable data for use in special articles on the State and for such other purposes as TV and radio programs.

TECHNICAL STUDIES

After rather limited operation for some months, this Section was scheduled to go into full operation on July 1 with the employment of Lawrence B. McGee as Section Chief.

C. W. Garber, who succeeded W. H. Riley as industrial site specialist in June, will, in addition, assist in other phases of the activities of the Section. Rounding out the personnel of the Section is Robert C. Emanuel who has been in charge of designing, drafting, and other activities.

This Section will continue in charge of the industrial site work and the records of available buildings. A major feature of the program of the Section will be a series of studies to determine the feasibility of various types of manufacturing operations for the State. As its findings become available, the Division expects to devote special attention to the attraction of the types on which attention is focused.

Another contemplated feature is a series of market studies directed toward specific industries to determine the potential outlets within this and adjoining states for manufacturers in various fields. These studies, in some instances, will be conducted for prospects, and others initiated within the Division are planned. A series of cost studies is also contemplated for some key industries.

Still another phase of the program of the Section will be in cooperation with the Development Representatives in their work with prospects having technical requirements for plant locations. Similar services will be made available to local development and other cooperating groups.

COMMERCIAL FISHERIES

Considerable improvement was made during the biennium in Division facilities for providing more efficient service to the commercial fishing industry and the general public.

Of outstanding importance were the two law enforcement schools conducted by the Institute of Government with the assistance of various State agencies for in-service men of the Division of Commercial Fisheries and for new recruits. These were the first schools of their type ever held for the division and they have proven to be of great help to division personnel in enforcement and interpretation of laws, rules and regulations governing North Carolina's commercial fishing industry.

The 1961 General Assembly provided sufficient funds for increasing personnel of the division. Added were three inspectors, one supervisor, one airplane pilot and patrol plane with all necessary equipment. At the close of the biennium division equipment consists of two patrol planes, 20 outboard motor boats, four larger boats, 23 cars. Most of them are equipped with ship-to-shore radios.

Placing of division personnel in complete and distinctive uniforms has been of much help and incentive in enabling them to meet the public properly and to do better work in general.

During the biennium the Commissioner of Fisheries attended seven public hearings and six meetings of the Commercial Fisheries Committee of the Board of Conservation and Development. These meetings dealt generally with problems of the commercial fishing industry, commercial fishermen, and differences with sport fishermen regarding commercial and sports fishing. These meetings and hearings apparently created a feeling of better understanding between commercial and sports fishermen of fishing areas used, or desired for use, by both groups.

More shells are needed for planting in public oyster growing grounds. Ways and means of providing these shells for planting should be found. North Carolina's oyster industry simply must have more shells if the oyster rehabilitation program is carried on as it should be.

Catches of finfish during the biennium totaled 68,028,677 pounds, or 942,664 pounds over the catch for the 1958-60 biennium. Value to fishermen of the finfish catch during the biennium was \$3,989,542, or \$348,054 more of what it was during the preceding biennium.

Principal catches of finfish were of croakers, flounders, herring, king whiting, mullet, gray trout, spots, sea bass, shad, bluefish, and catfish.

Catches of menhaden dropped considerably under those made during the 1958-60 biennium. The number of menhaden caught during the 1960-62 biennium totaled 639,460,300 for a value to fishermen of \$4,669,977 as compared with 734,946,129 caught during the preceding biennium for a value to fishermen of \$6,971,074.

Several of the menhaden plants were forced to suspend operations the fall and winter season of 1960-61 because of heavy importations of cheap fish meal from Peru and other foreign countries. However, this condition improved during the 1961-62 season.

North Carolina, along with other shrimp-producing states, had a poor shrimp season in 1961 when decreases from 50 to 60 per cent in the catch were common. However, the 1962 production of shrimp in State waters was the best since 1957 and prices received by those who caught them were the best in the history of the shrimp industry in the State. Some shrimp brought as much as \$.90 per pound with heads off. They were of excellent quality.

One of the brightest spots in the State's commercial fishing industry is in the production and catching of hard blue crabs. A total of 23,461,875 pounds of hard blue crabs were taken during the biennium as compared with 22,871,315 pounds caught during the preceding biennium.

Production of oysters showed a decrease as compared with the preceding biennium. This decrease was largely due to hurricanes and too much fresh water being forced into oyster-growing areas. The price and quality of the oysters taken during the biennium were excellent.

The total value to fishermen of all shellfish produced during the biennium was \$5,481,399, an increase of \$642,067 over the preceding biennium.

Total value to fishermen of food finfish and shellfish during the biennium was \$9,470,941 as compared with \$8,480,820 during the 1958-60 biennium. However, the decreased catch of menhaden brought the overall total value to fishermen of all catches under that for the preceding biennium.

Strict enforcement of all rules and regulations and statutory laws governing commercial fishing was continued during the biennium. Arrests for various infractions of fishing laws during the two-year period totaled 577.

Of increasing importance to the work of the Division of Commercial Fisheries is the assistance provided by the Institute of Fisheries Research, a unit of the University of North Carolina. Located next to the headquarters of the Division in Morehead City and under the able direction of Dr. A. F. Chestnut, the Institute's staff carries on varied studies designed to improve the commercial fishing industry. Included are studies on the trash fish industry, a survey of the salt water fishing activities in the State, a shrimp sampling project and study to ascertain more information on the movement of shrimp, a clam study, and a pilot shell dredging operation in Albemarle Sound to determine whether the taking of dead oyster shells in designated areas would adversely affect the fish and wildlife inhabiting the area.

The work of N. McK. Caldwell, supervisor, Sanitation Section of the Sanitary Engineering Division of the State Board of Health, and his assistants have been of increasing importance in North Carolina's shellfish getting a high sanitation rating. An official appraisal of the shellfish sanitation program in North Carolina for the 1961-62 fiscal year by the U. S. Public Health Service was made and a rating of 94.6 per cent given North Carolina shellfish.

Three sanitarians and a full-time bacteriologist are assigned by the State Board of Health in administering the certification responsibilities of the cooperative shellfish sanitation program.

The yearly averages of certificates of inspection issued to approved shellfish dealers during the biennium were: shellstock dealers, 75; shucking plants, 65; and crustacea meat plants, 21. There were 3,056 sanitary inspections made of these plants and the bacteriological laboratory examined 1,679 samples of shellfish and shellfish growing waters.

As a result of several outbreaks of infectious diseases in other states in which polluted shellfish were involved, the U. S. Public Health Service has cautioned all shellfish producing states to reappraise their surveillance of shellfish growing areas. Approval can be given only to those growing areas for shellfish harvesting that are proven to be free of actual or potential pollution. This will greatly increase the work of Mr. Caldwell and his staff.

During the biennium sanitary surveys and bacteriological studies were made of shellfish growing waters in Lockwood Folly River, Myrtle Sound, Middle Sound, Stump Sound, New River, White Oak River, Bogue Sound, Newport River, Back Sound, Nelson Bay, Silver Lake, and Stumpy Point Bay.

KIND, QUANTITY AND VALUE OF FISH TAKEN IN WATERS OF NORTH CAROLINA

For the period July 1, 1960 to June 30, 1962

Kinds of Fish	No. Pounds	Value to Fishermen
Bluefish	1,450,528	\$ 174,063
Butterfish	541,158	43,293
Cabio	32,819	1,969
Carp	305,080	9,152
Catfish	2,174,006	173,920
Croakers	3,753,885	300,311
Black Drum	227,952	13,677
Red Drum	182,334	18,233
Eels	112,347	4,494
Flounders	3,722,797	446,736
Grouper	576	40
Grunts	3,872	232
Harvestfish	77,041	6,163
Herring, Thread	4,127,870	44,994
Herring	26,250,951	262,510
Hickory Shad	446,413	26,785
Jewfish	704	42
King Mackerel	94,838	17,071
King Whiting	2,940,297	294,030
Mackerel, Boston	22,161	3,324
Mullet	5,048,472	403,878
Pigfish	354,233	14,168
Pike or Pickerel	73	9
Pompano	13,090	3,927
Sand Perch	28,970	869
Scup or Porgy	583,069	46,646
Sea Bass	1,815,319	217,838
Grey Trout	4,731,675	378,534
Spotted Trout	332,960	99,888
Shad	1,437,945	359,486
Sharks	4,871	487
Sheephead	21,448	1,716
Red Snapper	7,902	2,213
Spade Fish	5,218	313
Spanish Mackerel	259,492	38,924
Spot	4,706,148	282,369
Striped Bass	1,280,521	192,078
Sturgeon	88,526	13,279
Swellfish	637,988	19,140
Tilefish	389	31
Tuna	896	54
White Perch	672,683	67,268
Whiting	2,835	113
Yellow Perch	87,909	5,275
Total of Food Fin Fish	69,028,677	\$ 3,989,542
Menhaden (No. of Fish)	639,460,300	4,669,977
		8,659,519

SHELLFISH

Oysters	362,451	(Bu. tubs) 5 pk.	1,244,871
Clams	94,187	(Bushels)	313,205
Soft Shell Crabs	28,341	(Dozen)	67,085
Escallops	22,712	(Gallons)	114,196
Hard Crabs	23,461,875	(Pounds)	1,159,142
Shrimp	4,235,778	(Pounds, heads off)	2,573,803
Snapping Turtles			\$ 6,101
Squid			2,852
Octopus			144
Total Value of Shellfish			\$ 5,481,399
Value of Fin Fish			8,659,519
Total Value of Water Products			\$14,140,918

COMMUNITY PLANNING

COMMUNITY PLANNING

The primary function of the Division of Community Planning is to provide towns, cities and counties with the technical assistance needed for the solution of their physical, social and economic problems through planning. Assistance is given in the development of plans for land use, streets, parking, central business districts, parks, recreation, schools, and other community facilities; in drafting zoning and ordinances, subdivision regulations and other legal tools needed for the implementation of plans; in studies of population, fiscal conditions and economy; and, in the provision of continuing technical assistance needed by municipal and county officials as they attempt to carry out the recommendations of comprehensive community plans.

THE NEED FOR COMMUNITY PLANNING

The need for sound community planning is evident in our growing traffic congestion, the deterioration of residential areas by improperly located commercial or industrial activities, the cancerous growth of slum and blighted conditions, the decline of the central business districts, the rapidly increasing cost of municipal services, and the inadequate provision of land for parks, schools and other public uses. The great majority of North Carolina communities, like most American communities, have grown without the benefit of adequate plans to guide development. Fortunately, North Carolina is still a State of small communities and we can avoid the tragic and costly mistakes which have been made in the large metropolitan concentrations in other sections of the country.

Few States contain so many small incorporated places or have more population living in communities of under 50,000 persons. These communities are one of North Carolina's great assets and they are becoming increasingly attractive to people, business and industry now located in overcrowded metropolitan centers. At the present time, there are 415 incorporated communities in North Carolina. According to the 1960 Census, 210 of these communities, or approximately one-half, had populations in excess of 1,000 persons; 59 communities had populations in excess of 5,000 persons, and only seven municipalities had populations in excess of 50,000 persons. While the typical North Carolina municipality is small, it is also experiencing a rapid rate of growth. Between 1950 and 1960, almost 90 percent of North Carolina's total population increase took place in the 210 communities having populations of more than 1,000 persons. During the past decade, the combined populations of these communities increased 29.8 percent while the population of the remainder of the State increased only 1.3 percent.

DIVISION'S PRIMARY RESPONSIBILITY TO SMALL COMMUNITIES

The seven municipalities in North Carolina, having populations of more than 50,000 persons, have created planning departments staffed with professional planning personnel to assist in the increasing problems of urban growth. The smaller towns and cities do not have the financial resources to employ full time professional planning staffs although their planning needs are not less acute than those of their larger neighbors. Therefore, the Division maintains a trained staff which provides professional planning services to the smaller towns, cities and counties at a reasonable cost. Individual staff members of the Division may work with several communities, thus, reducing the overall planning costs for the individual community far below that which would be incurred if they employed their own full time planning staffs.

FEDERAL PLANNING GRANTS TO MUNICIPALITIES AND COUNTIES HAVING POPULATIONS OF LESS THAN 50,000 PERSONS

The Division of Community Planning has been authorized to act in behalf of towns, cities and counties in obtaining Federal planning grants covering up to 60 percent

of the cost of certain eligible planning projects. These Federal planning grants are not made directly to the local government but are made to an authorized state planning agency. The towns, cities or counties receiving aid from the planning grants also pay their share of the planning costs to the state planning agency. The state planning agency, which in North Carolina is the Division of Community Planning, is then responsible for the expenditure of the Federal and local funds and for the provision of adequate planning services to participating local governments. These Federal planning grants, authorized under Section 701 of the Federal Act of 1954, as amended, are available to aid in the cost of: (1) making studies of population, economy, land use and traffic; (2) preparing long-range plans for future land use, thoroughfares, central business districts, schools, parks, recreation and other community facilities; (3) preparing related ordinances such as zoning and subdivision regulations; and (4) preparing public improvement programs establishing the priority of need for the various public improvements proposed in the long-range plans.

AREA PLANNING OFFICES AND RESIDENT PLANNERS

The individual small towns or city cannot support the cost of maintaining its own professional planning staff but by pooling its resources with those of neighboring communities, a joint planning staff can be financially supported. In order to encourage the smaller towns and cities to initiate and support effective planning programs, the Division of Community Planning will establish Area Planning Offices staffed with professional planning personnel to provide assistance to any community or group of communities agreeing to pay for the cost incurred. These Area Planning staffs would act for the smaller communities in much the same manner as the planning departments in the larger municipalities. They would be available to provide continuing planning assistance to the smaller municipalities, not only to assist in the preparation of plans but also to provide technical assistance needed by municipal officials for the solution of day-to-day problems affecting the physical development of the community. The establishment of Area Planning Offices is the result of an increasing realization among municipal officials that planning should be a permanent function of local government. This is especially true in periods of rapid urban change and growth. The completion of a comprehensive plan provides the framework for decisions about the desirable development of the community, based upon the best available knowledge of population growth, economic potential, and land use trends within the community. But the plans have little value unless a continuing community planning program is maintained to insure that decisions affecting the physical development of the community are made within the framework of the plans and within the financial capacity of the community. Since many technical questions are involved, municipal officials need professional planning assistance available to them on a continuing basis. Such assistance will be available to those towns, cities, and counties who share in the financial support of the Area Planning Offices of the Division.

The Division has established and staffed three Area Planning Offices and more may be added in the future to meet expanding demands for planning assistance. The three existing offices are located in Kinston, Salisbury and Raleigh. Each of these offices is staffed with competently trained planners, draftsman, and other specialists and personnel as needed. The Division will also make resident planners available to individual communities, or to two or three neighboring communities. The resident planner will reside in the community being served and provide close assistance to the local planning board and other public officials. When the resident planner is confronted with unusual problems or needs the services of specialists, he may call on other members of the Division's staff for assistance. The smaller communities and counties throughout the State, by making use of the Division's area planning offices or resident staffs, can obtain a highly professional and well rounded planning service at a moderate cost.

COMMUNITIES RECEIVING PLANNING ASSISTANCE

Between 1958 and 1962, the Division provided planning assistance to eighty-five municipalities and fourteen counties. The average size of the municipalities is

approximately 8,000 persons. Of all communities which have received assistance, 56 percent had populations of less than 5,000 persons, 18 percent had populations between 5,000 and 10,000 persons, 15 percent had populations between 10,001 and 20,000 persons, and 10 percent had populations between 20,001 and 50,000 persons. The locations of the communities being served is fairly evenly distributed throughout the State. The largest county being served by the Division is Halifax with a population of 58,956 persons and the smallest is Dare with a population of 5,935 persons.

FORESTRY

The General Statutes of North Carolina assign broad responsibilities and authority to the Forestry Division on 18 million acres of forest land as indicated by the following quotation from the law "have charge of the work of forest maintenance, forest fire prevention, reforestation, and the protection of lands and water supplies by the preservation of forests, etc." In addition to the broad outline of responsibilities and authority, there are specific authorizations including "to arrange for and accept such aid and cooperation from the several United States Government Bureaus and other sources as may assist in carrying out the objectives of the Department." The Forestry Division, or more commonly called the State Forest Service, in carrying out its responsibilities under the law, has the following programs.

1. Forest Fire Control—This is a cooperative program with financial support from the U. S. Forest Service and 92 counties in the State.

During the Biennium outstanding achievements were accomplished in the use of tanker planes in coordination with the ground forces. Much training went into this air and ground coordinated program. The system used by the Division is considered a model for the South. This was attested to by the fact that the Southeastern Forest Fire Compact Commission held its annual training session at the Kinston facility. The two tanker planes have become an integral part of the fire fighting organization. During the Spring of 1962 some 260 water and chemical drops were made, and in a number of instances were successful in keeping fires in inaccessible areas to a small acreage until the ground forces could arrive.

The Kinston facility, a leased portion of the Stallings Air Base, is the headquarters for the Region I heavy equipment and planes. It also serves as a statewide training center with barracks, mess hall and class rooms. This is a program of the Division indicating considerable progress.

2. Forest Management Advice and Service—The employment by the Division of 77 graduate foresters, 11 forestry aides and intensive forestry training of forest rangers has accelerated the amount of forest management advice and service available to forest landowners of the State. Despite an increase in services available, an average of 1,000 requests have been awaiting attention at all times during the Biennium. This is a reduction in this category from 2,500 during the last Biennium. The services available consist of assistance in reforestation, forest management plans, tree marking of forest products for sale and marketing of marked trees.

3. Forest Tree Nurseries and Reforestation—The distribution from the four forest tree nurseries showed a marked decrease during the Biennium, primarily due to the termination of the Soil Bank Program. The total distribution for the two planting seasons was 111 million tree seedlings and transplants. An intensive sales promotion campaign was inaugurated and undoubtedly was of material assistance in landowner participation in the reforestation program.

4. Information and Education—There is available considerable literature on forestry, most of which is free upon request to the Information Officer of the Department. This literature is particularly valuable to teachers, pupils, etc.

5. Administration of State Forests—Thus far, the State owns and operates only one State Forest, the 35,000 acre Bladen Lakes State Forest in Bladen County. It is administered by the Division and is an excellent example of the management of low value land under good forestry practices. Since 1939 when the State obtained control of this sub-marginal agricultural area, the Division of Forestry has operated the property as a forest unit and increased its book value at least sevenfold.

6. Forest Insect and Disease Control—Insect control projects for the balsam woolly aphid in the Mount Mitchell area and the southern pine beetle in Dare County were carried out. Disease control projects were continued in combating the oak wilt and white pine blister rust diseases in western North Carolina. As this report period ends, a very serious southern pine beetle epidemic looms in the Central Piedmont area of the State.

7. Small Watershed Program—In cooperation with the U. S. Forest Service and the Soil Conservation Service under P. L. 566, the Division employs three Watershed Foresters on three small watershed projects. This program is expanding rapidly and the Division's activities will be increased as more projects are activated.

FOREST FIRE CONTROL

Material progress has been made in reducing the forest fire losses in North Carolina including the so-called ground burning area which embraces approximately two million acres in the Coastal Plain. Forest fires in this particular type are extremely difficult to extinguish under dry conditions due to the ground cover and inaccessibility. This is the most difficult forest fire problem in North Carolina.

Two large forest fires occurred in this ground burning area, one burning 8,000 acres in the Spring of 1961 and the other burning 3,000 acres in the Spring of 1962. The 8,000 acre fire was the largest that occurred during the period of this report, and was in the inaccessible area west of Gum Neck in Tyrrell County. The 3,000 acre fire in the Spring of 1960 was in the Pantego Swamp just east of Pantego. This is also a dense forest and an inaccessible area.

During the Spring of 1961 a 3,000 acre fire occurred in the southeast section of Bladen County in the area southeast of White Lake.

Another serious fire occurred in Richmond and Scotland Counties during late April of 1962 and burned about 2,500 acres, in the area a few miles east of Hamlet.

All four of these major fires burned under highly explosive fire weather conditions and three of them required the use of water dropping planes to bring them under control. Excellent cooperation was received from Industrial, Development, and Private landowners and the Prison and Highway Departments, in the suppression of these major fires.

In late April of 1962 a forest fire occurred in Rutherford County, under highly explosive fire weather conditions and burned a total of 1,200 acres before it could be brought under control. This fire trapped and killed a sawmill worker who walked back into the fire, against the advice of his partner, to get a lunch box and chain saw and apparently "panicked" as reportably, avenues of escape did exist. Considerable assistance was rendered on this fire by Rural and Municipal fire departments.

Progress has been made on basic and equipment development research in the ground burning coastal area under cooperative arrangements with the U. S. Forest Service and Forest Industry. A primary percentage of the area burned in the State is usually accounted for by a few large fires in this difficult area.

The Forestry Division continued the operation of two water dropping planes which proved to be of great value in the suppression of high intensity fires, and small fires in isolated locations. It was necessary to replace one of these water dropping planes (military conversions) with a new commercial water dropping plane due to aluminum corrosion and other depreciation. Efforts are now being made to replace the remaining military type water dropping plane with a new commercial plane of the same type, due to aluminum corrosion on primary structural parts and general depreciation.

The Federal Government, under the provisions of the Clarke-McNary Law, continues its financial cooperation with the State. The amount of Federal funds made available to the State under this law depends primarily on the State Appropriation for Forest Fire Control and the State maintaining its relative position with other States in appropriation for Forest Fire Control. A reduction in Federal allotment to this State for the 1962-63 Fiscal Year resulted from failure of this State to maintain its relative position with other States in Forest Fire appropriations.

PRESENT ORGANIZATION

The State is organized into four Forestry Regions, those being the Lower Coastal, Upper Coastal, Piedmont and Mountains. All but the Mountain region has a Regional Forester in charge who supervises four District Forest field supervisory Districts in the Lower and Upper Coastal Plain Regions and two in the Piedmont Region. The three Mountain Districts having no Regional Forester work directly under the Raleigh Office. Each of the 13 District Forest field supervisory offices is in charge of a District Forester who supervises the work in the area of from about 1 to 2 million acres of timberland involving from 4 to 10 counties depending on size. The District Foresters have 1-4 supervisory assistants. There were 92 counties cooperating with the Forestry Division as of June 30, 1962.

STATE PLANS

The State Forest Fire Plan for large project fires, involving cooperation with the Highway and Prison Departments, other State Departments, Marine Corps at Camp LeJeune, industrial and other forest landowners was used on two project fires with excellent cooperation and results.

Training Schools in large fire organization and suppression have been held each year in the Lower Coastal Region in cooperation with Forest Industry, other landowners and the Marine Corps. A cooperative fire suppression agreement with the Marine Corps is a part of the above mentioned State Fire Plan. In addition, similar training schools in large fire operations have been held in the Piedmont Region in cooperation with the numerous Rural Fire Departments.

The 1962 annual training school for the Southeastern States Forest Fire Compact Commission, involving ten Southeastern States, was held at Kinston in August of 1962 with attendance from all but one of the ten States.

A Rural Fire Defense Plan has been completed in cooperation with State Civil Defense and the U. S. Forest Service to provide for the coordinated use of the man power and equipment resources of Federal land protection agencies and the State Forestry Division in case of enemy attack or natural disasters. The State Forester is Chairman of the Rural Fire Defense Committee and will operate under the over-all direction of the Director of State Civil Defense under such conditions.

COUNTY COOPERATION

Work has been continued in financial cooperation with the 92 counties under forest fire control, such work being based on the County as a unit. This form of cooperation has met widespread support from the various counties. The Department cooperates with the various counties on the basis of their ability to pay as indicated by each County's taxable wealth. The counties pay from 25% to 40% of the total cost of fire protection within the county.

As of June 30, 1962 there were eight counties representing about 1,080,900 forest acres in the State still without any organized form of forest fire protection.

PRIVATE COOPERATION

Financial cooperation was continued with private forest owners who agree to pay an annual amount which is used to supplement other available funds to provide more intensified fire protection to their lands.

DETECTION SYSTEM

The Forestry Division now operates 144 fire lookout towers and Federal land ownership agencies operate an additional 42 such towers in cooperation with the Forestry Division for reporting forest fires. The Division also operates six State-owned reconnaissance airplanes which supplement the tower network in periods of unfavorable visibility and these planes aid the ground crews by giving directions, fire progress and locations. Another valuable service is the parachuting of food, drinking water, coffee and small items of supplies to the crews.

FORESTRY DIVISION COMMUNICATIONS

Currently there are 152 fixed stations, 470 mobile and 67 portable two-way communications radios in operation by the Forestry Division along with a considerable mileage of telephone line. Most of the fixed station radios are in lookout towers and District Offices and the mobile radios are on pick-up trucks, jeeps, larger trucks, station wagons, and other fire suppression vehicles.

PERMANENT IMPROVEMENTS

A new District Headquarters site for the Fairfield District was purchased and a part of a combination workshop and warehouse building was constructed together with a deep well and water system in 1961. A small building covering the well, pump and storage tank was constructed on this site in 1962. Improvement of drainage and considerable filling in was necessary.

A 100' radio antenna tower was erected on this site and a large gasoline tank and pump were installed, both in 1961.

Facilities for an aircraft operations and maintenance base, a large fire heavy equipment maintenance headquarters and a training center were rented at the Kinston Municipal Airport (Stallings Field) under a formal lease beginning January 1, 1962 and renewable annually for five years. These facilities consist of a large aircraft hangar, a paint shop hangar building, a combination workshop and storage building; and, classroom, mess hall and barracks buildings for the training center. Use of the aircraft runways is included in the lease. The rental of these facilities fills several acute needs and makes a satisfactory headquarters facility for the above activities.

The Rose Hill and Chinquapin lookout tower sites in Duplin County, formerly under lease, expiring in 1961, were purchased in the Summer of 1961 and are now State Property.

Negotiations were started with landowners on a number of other tower sites (under expiring leases) toward purchase of the sites prior to lease expiration and plans were made to continue the acquisition of these tower sites as required.

On May 10, 1962, lightning struck one of the two main warehouse buildings at Whiteville about 2:00 A.M. and burned it completely before the fire could be extinguished. It was an old Civilian Conservation Corps barracks building; and, the State insurance was not sufficient to replace it with a permanent building.

FOREST FIRE STATISTICS

The forest fire statistics for the past four years are shown in the statistical chart. In evaluating these statistics, the following factors must be kept in mind:

1. Climatic conditions are all important in the actual suppression of forest fires.
2. Funds available represented only a little over one-half the amount needed for adequate protection.

CONCLUSION

During the Biennium, major forest fires were controlled at considerably less acreage than in the previous Biennium reflecting the impact of more thorough organization, training and preparation for such fires. Cooperation from all State and Federal agencies, landowners and the general public are indicative of the real progress made in Forest Fire Prevention and Control.

FOREST FIRE STATISTICS FOR STATE PROTECTED AREAS BY CALENDAR YEARS

	1958	1959	1960	1961
Area under Protection—Acres	16,810,200	17,209,600	17,276,800	17,279,400
Number of Fires	2,467	3,047	3,002	3,417
Causes of Fires				
1. Campers and Hunters	440	208	307	408
2. Debris Burning	785	1,185	990	1,075
3. Incendiary	324	396	489	573
4. Lightning	20	43	34	18
5. Lumbering	37	59	61	47
6. Railroads	87	70	114	80
7. Smokers	473	618	525	617
8. Miscellaneous	301	468	482	599
Total	2,467	3,047	3,002	3,417
Area Burned:				
Forest Land	46,921	78,837	71,733	53,374
Open Land	5,822	6,367	4,650	5,419
Total	52,743	85,204	76,317	58,793
Damage:				
Forest Land	\$ 287,427	\$ 577,232	\$ 675,088	\$ 367,527
Other	26,454	46,838	20,816	80,951
Total	\$ 313,881	\$ 624,070	\$ 695,904	\$ 448,478
Law Enforcement:				
Number of Fires Resulting in Law Enforcement Action	141	326	200	245
Finances—Fiscal Year:				
Appropriations by Counties	\$ 333,927	\$ 341,698	\$ 343,863	\$ 379,058
Appropriations by Private Owners	33,145	31,998	30,183	31,644
Appropriations by State	825,114	987,916	991,369	1,332,008
Rentals from Employees	6,400	8,548	8,893	8,844
Appropriations by Federal Government	310,500	311,600	311,057	438,025
Presuppression Fire Lines	4,700	4,700	2,508	2,682
Bladen Lakes State Forest	8,844	8,844	8,844	8,844
Miscellaneous	-0-	-0-	594	639
Total	\$1,522,630	\$1,695,304	\$1,697,311	\$2,201,744
Available Funds:				
Per Acre Protected	9.06 cents	9.85 cents	9.82 cents	12.74 cents

FOREST MANAGEMENT

The growing of forest products continues to be the predominant form of land use in North Carolina. Over 19 million acres, 62% of the total land area, is presently growing trees. Wood, or wood fibre is the basic raw material for more than 45% of the State's manufacturing establishments. They are located in every county of the State and for over 300 years have been a major source of steady employment for citizens in all sections of the State. Investments in wood using industries are second only to the textile industry in the State economy.

North Carolina, with 4% of the nation's commercial forest area, currently supplies 5% of the total annual cut and produces 6% of the annual growth of the nation. Yellow pine sawtimber and pulpwood are the preferred raw materials for most of the forest industries in and adjacent to North Carolina. Hardwoods account for more than 1/3 of the forest products harvested in the State. The use of hardwood pulpwood by the pulp and paper mills is increasing.

The State has enough forest land of high productive capacity to easily meet the anticipated demands of a rapidly expanding population. Growing increased quantities of timber, however, without regard to quality, or species, will not necessarily meet present or future needs.

The last inventory of the State's forest resources shows that growth exceeds cut for all important species groups. Much of this inventory however consisted of timber the forest industries cannot use.

The furniture plants in North Carolina, in 1958, imported 55% of their domestic lumber requirements because of a shortage of native hardwood suitable for the high quality furniture for which the State is famous. The volume of, and the growing space occupied by cull trees and low quality hardwood, has increased rapidly in recent years.

The market for North Carolina's southern pine sawtimber is presently being threatened by the well manufactured lumber from the virgin forests of the West Coast. If North Carolina is to maintain its position as the largest producer of lumber in the South and fifth in the nation, the quality of trees from which the lumber is produced, and the manufacturing, processing and grading of the lumber produced must all be improved. Proximity to the Eastern industrial markets gives North Carolina a distinct advantage over the other lumber producing states in the sale of quality forest products.

The problem of the Forest Manager then is to grow trees of superior quality that will produce the specific products which will be in demand some 20 to 60 years in the future as well as those in current demand.

The pulp and paper industries are managing their forests for the production of wood fibre of a specified quality. The National Forests and State Forests are managed for maximum production of pulpwood and quality sawlogs.

The 222,000 farm woodland owners with forest holdings averaging 60 acres are the key to future supplies of wood. These farmers own more than twice as much forest land as do all others together, and their woodlands, because of exploitation and neglect, are among the least productive. These lands offer the greatest need and opportunity for improving the quality and supply of timber.

It is to the owners of these potentially highly productive but presently understocked and unmanaged farm forests that the Division of Forestry offers professional forestry services. The outstanding feature of this activity is that the private landowner is given in-the-woods advice and assistance on how best to manage and market his timber.

When advice or assistance is requested, the forester makes a thorough reconnaissance of the farm forest to evaluate the present condition of the forest area and to determine the capability of the soil to produce specific forest products. The forester informs the landowner of these conditions and recommends a plan of action that will maintain or increase the forest growth, and at the same time meet the needs or limitations of the landowner.

Additional services include: Selecting, marking, and estimating the volumes in trees ready for harvest; assistance in finding markets for and selling forest products; elimination of cull trees, undesirable or unmerchantable species and restocking with desirable species; assistance in preparing open fields, cut over or otherwise under-

stocked areas for natural regeneration or reforestation by planting; advice and assistance in obtaining and planting forest tree seedlings.

The professional forestry services of the Division are now available to landowners in every county in the State. The number of Service Foresters who devote all of their efforts to giving forest management assistance was increased from twelve to sixteen during the Biennium. Other foresters devote part of their time to this forest management advice and assistance. The Division has inaugurated an intensive training program in Forest Management for the non-technical personnel. These employees, particularly the County Forest Rangers, will be qualified to assist the farm woodland owners in the mechanics of carrying out the Forest Management recommendations of the technical foresters.

A nominal charge is made for the marking service. Landowners are charged at the rate of 50¢ per thousand board feet of sawtimber marked, 15¢ per cord of pulpwood marked and 15¢ per seed tree selected. No charge is made for the first 20,000 board feet or ten cords marked.

During the last fiscal year, over 18 million board feet of sawtimber and 16 thousand cords of pulpwood were marked for harvest by foresters of the Division. Gross returns to landowners receiving assistance in marking and harvesting their forest products during the fiscal year exceeded three quarters of a million dollars.

SUMMARY OF FORESTRY ASSISTANCE

	Period 1948-1960	During Biennium 1960-1962	Total to Date
No. of Examinations Made	15,319	4,134	19,453
Total Woodland Acres Examined	2,139,235	345,926	2,485,161
No. of Tracts Marked	5,442	1,183	6,625
Acreage Marked	127,916	17,229	145,145
Board Feet Marked	301,708,000	35,181,000	336,889,000
Cords Marked	128,624	25,567	154,191
Acres Given Planting Assistance	124,675	55,574	180,249
Applications Not Acted Upon		1,228	1,228

Requests for forestry advice or assistance not permitted by the Division's policy are referred to independent Consulting Foresters or Industrial Foresters. During the Biennium, 392 requests involving 56,320 acres were referred directly to these private foresters. In addition, 202 projects, for which the Division's forester had recommended timber marking, were referred to the Industrial Foresters or Consulting Foresters for marking. They followed the marking recommendations made by the N. C. Forest Service in marking 8,748,000 bd. ft. of sawtimber and 20,625 cords of pulpwood.

INDUSTRIAL FORESTRY

The Division of Forestry is presently gathering field data to revise the publication, "Buyers of Forest Products in North Carolina". This listing of the persons who are in the market for round forest products has received wide acceptance over the past eight years with about 7,500 copies of two previous editions being distributed.

In conjunction with this, a commodity drain survey is being conducted to aid in the determination of the amount of cutting pressure on the forests of a given area, down to the county level. This will give valuable information, on amount of timber cut, which has never before been available on this level, to any appreciable degree of accuracy. This commodity drain survey is being conducted by the Division in the field, with the Southeastern Forest Experiment Station compiling, and publishing the information for North Carolina and several of the other Southeastern States.

In line with the nationwide trend in the lumber industry, the decline in the number of sawmills in North Carolina is continuing, with about a 40% reduction in the number of operating mills over the past ten years. The recession of last year forced many of the marginal operations to cease business and caused a considerable reduction in production of lumber. Lumber production is down some 15 to 20% in the past ten years with much of the loss in the past two or three years. The above

circumstances have tended to cause an, almost universal, modernization program in the North Carolina sawmill industry. The remaining mills are almost all stable, permanent operations which are a great economic asset to the areas in which they are located.

Work along the lines of educating the operators of forest products industries in the values of forest management to assure their plants of a continuous supply of raw material is continuing. The raw materials which the forests of North Carolina supply are being utilized to a fuller extent than ever before. The installation of additional utilization equipment has continued. An increase in the use of, solid wood, mill waste has increased from almost none ten years ago to over 1,000,000 tons in 1961, for pulp chips alone. In addition to this use, there is some waste used for particle board to bring the total used to at least 65% of the total solid wood and a much higher percentage of the economically available supply. This waste material brings at least \$7,000,000 in revenue to mills.

A major project of the Division, which will be of great assistance to the wood using industry, is the gathering of field measurements for data to be used in computing a tree volume table. This table will be based on total cubic feet of volume with conversion back to any unit of measure desired and any degree of utilization which applies for the product and area. The figures to come out of this work will apply specifically to North Carolina forests. The cubic volume concept is gaining strength throughout the United States because of its increased accuracy and the very important factor of ready conversion to any unit of measure wished; such as, any desired present log rule, weight, finished product, or cords. This type measurement has the ability to be adapted to the different degrees of utilization found throughout North Carolina, with the wide variation in conditions from the mountains to the coast. The Division of Forestry of the North Carolina Department of Conservation and Development is the first State forestry agent to go to this form of volume computation which is recommended by the Society of American Foresters as the best means to get some standard which can be universally used and accepted by industry and foresters alike.

NURSERIES

The North Carolina Division of Forestry now operates four nurseries. These installations are located in Johnston, Wayne, Burke and Henderson Counties. They have a combined capacity of 100 million seedlings annually.

An intensive forest tree seedling sales promotion campaign was inaugurated during the Biennium with the employment of two qualified men to assist the field forces in organizing television, radio and newspaper coverage, preparation of fair exhibits and use of other educational media. Emphasis was placed on actual field contact with landowners to inform them of the value of forest tree planting and the proper methods of plantation establishment. This program was considered highly successful and will be intensified and expanded.

Tree seedlings are sold at approximately the cost of production for windbreaks, erosion control and reforestation at varying prices. The several species of pines, which comprise most of the production, sells for \$4.50 per thousand F.O.B. nursery.

The following tabulation shows the distribution breakdown by species and co-operators. The decline in nursery production is due to the termination of the Soil Bank Program. Much of the forest tree planting is now in the conversion of low grade stands to more valuable species.

DISTRIBUTION OF FOREST TREE SEEDLINGS BY SPECIES

Species	1958-59	1959-60	1960-61	1961-62
Arizona Cypress	-0-	-0-	133,950	271,735
Atlantic White Cedar	348,000	15,575	-0-	1,300
Cypress	1,950,487	191,150	276,718	106,850
Fraser Fir	282,500	424,375	261,750	396,150
Loblolly Pine	72,891,971	47,649,935	32,451,700	24,068,400
Longleaf Pine	1,720,935	1,084,486	1,590,940	1,219,785
Norway Spruce	42,500	13,000	-0-	-0-
Pond Pine	285,500	56,100	223,900	188,950
Red Cedar	350,891	484,850	-0-	626,810
Shortleaf Pine	1,090,150	593,200	293,300	203,300
Slash Pine	10,988,000	24,087,250	21,718,720	9,971,010
Virginia Pine	86,400	90,900	106,100	180,300
White Pine	6,881,422	7,777,600	9,019,100	5,731,275
Yellow Poplar	1,071,750	581,000	808,300	538,550
Scotch Pine	-0-	-0-	-0-	101,700
Miscellaneous	7,050	7,600	26,350	114,750
Totals	97,997,556	83,057,021	66,910,828	43,720,865

DISTRIBUTION OF FOREST SEEDLINGS BY CLASS OF COOPERATORS

Class of Cooperators	Number of Cooperators	Number of Trees	Number of Cooperators	Number of Trees
	Biennium 1960-1962		Cumulative Grand Total	
Farmers	14,341	75,606,500	63,943	351,945,354
Industries	169	27,861,000	815	183,010,649
Schools	85	226,300	864	3,247,409
State	21	1,495,000	252	7,868,286
Clubs and Organizations	134	368,000	2,949	1,963,114
Municipalities	34	1,267,000	152	11,917,124
Federal Agencies	20	2,692,000	143	18,605,117
Others	416	1,084,200	1,359	11,379,377
Totals	15,220	110,600,000	70,477	589,936,430

PUBLICATIONS

The tenth edition of "Common Forest Trees of North Carolina" was reprinted in 1962. To date 85,000 copies of this publication have been distributed to school teachers and pupils. One copy is given free to the teachers, pupils and others are charged 20¢ per copy.

The Division of Forestry in cooperation with the Tennessee Valley Authority published a booklet entitled "Sawmills and Lumber Production For Twenty-Six Counties in Western North Carolina". This publication contains the results of a comprehensive survey of sawmill activity in lumber production in 26 counties in western North Carolina for the calendar year 1958.

A brochure on the Bladen Lakes State Forest is available to show progress and developments on this area. In cooperation with the Tennessee Valley Authority a "Guide For Watershed Management—The Second Decade" was published for the Town of Waynesville and others interested.

A pamphlet designed to assist forest landowners in marketing various products entitled "Buyers of Forest Products in North Carolina" is available with distribution limited to specific requests.

BLADEN LAKES STATE FOREST

The initial primary objectives of the State Forest were: To build up the growing stock of forest products on the mismanaged and previously badly burned area; to utilize all resources from the Forest in its development and expansion; and finally to demonstrate that such an area could be made to more than pay its own way under sound forest management techniques.

As these initial primary objectives became reality, the management has endeavored to expand the value of the State Forest, to the citizens of North Carolina and the South, as a complete forestry demonstration.

Every effort is made to provide an area where interested persons can observe a broad program of forest management including operating techniques, natural and artificial regeneration techniques, site preparation techniques, logging, sawmill pulpwood and fence post operations; silvicultural techniques, road construction techniques, methods of cost control, management control, etc. All of these operations are set up as model units and any interested person or group can view the operating details and obtain cost estimates of same. These demonstrations are also of great value in providing a training ground for our own Forestry Division employees; in providing an area where extensive forestry demonstrations and ideas can be developed in cooperation with other agencies, in providing a high degree of fire protection, and finally and of utmost importance—in providing a means of producing a total annual income from such a young forest that will insure its survival as a practical demonstration of the profession of forestry.

A variety of expansion and demonstrational activities are carried on—as examples, in 1961-62 over 712,000 seedlings were planted on prepared sites; over 5,000 acres were control burned; three miles of new roads were constructed; over 230 acres of suppressed pine were released; several hundred persons were conducted on field trips or on demonstrations of operational or silvicultural activities; over 28 experimental projects, many in cooperation with North Carolina State College, were installed or maintained; trained four student foresters—a valuable source of recruits for the Division of Forestry; plus many lesser projects too numerous to mention.

Intensive fire prevention and protection activities have resulted in a record of no forest fires of any consequence having occurred on the State Forest since April 1955.

The State Forest has been self-supporting since 1939 when responsibility for its management was assumed by the N. C. Division of Forestry. The tables outlined below will indicate the State Forest's source of income and will also indicate how this income has increased annually.

For many years the Bladen Lakes State Forest has paid taxes to the County of Bladen. Currently it is taxed by the county at the same rate as is other privately owned property in the county. In 1961 these taxes amounted to \$7,588.88.

While large sums are needed in the development and operation of so young a Forest, each year some over \$12,700 from State Forest receipts is turned over to the Division of Forestry for other Division purposes.

R E C E I P T S

BLADEN LAKES STATE FOREST

Fiscal Years 1960-61 and 1961-62

3,584,487	Board Feet Rough Green Lumber	\$228,905.29
200,081	Board Feet Logs	13,867.26
7,490.33	Cords Pulpwood	79,472.90
69.00	Cords Oak Wood Stumpage	70.23
633.64	Cords Rough Slabs	789.80
7,022	Tons Debarked Slabs	27,865.88
5,793	Pounds Charcoal	262.09
41,488	Treated Pine Posts	23,696.13
125,400	Handle Squares	586.70
10,000	Tobacco Sticks	50.00
25,000	Baling Sticks for Nurseries	74.85
10,650	Small Trees	639.00
	Christmas Trees	156.94
	Pine Straw	254.72
	Custom Treating	1,220.73
	Miscellaneous	169.32
	Rentals and Sale of Equipment	4,636.73
		\$382,718.57

**BELOW ARE OUTLINED THE YEARLY GROSS RECEIPTS
SINCE THE YEAR 1939**

Year	Amount
1939-40	\$ 169.24
1940-41	1,092.57
1941-42	8,786.37
1942-43	16,761.72
1943-44	31,794.00
1944-45	41,848.13
1945-46	26,793.95
1946-47	32,038.56
1947-48	31,045.46
1948-49	52,597.53
1949-50	61,189.83
1950-51	93,013.21
1951-52	95,008.23
1952-53	85,735.81
1953-54	85,592.77
1954-55	95,388.02
1955-56	103,415.33
1956-57	106,850.65
1957-58	123,529.40
1958-59	173,024.78
1959-60	194,266.72
1960-61	183,290.28
1961-62	199,428.29
Total	\$1,842,660.85

FOREST INSECT & DISEASE CONTROL

Since 1953 the Forestry Division has been responsible for the control of forest insects and diseases. This control, of course, is integrated into the over-all forestry program, and is usually handled by the field foresters along with their other regular work. Occasionally, however, epidemics occur which necessitate special action. When these special projects are set up, the U. S. Forest Service is able to cooperate financially under the U. S. Forest Pest Act of 1947. They finance from one-fourth to one-half of the cost of this work, depending upon the individual project.

During the past two years we have been involved in insect projects on the southern pine beetle and balsam woolly aphid. Disease projects have been oak wilt and white pine blister rust control.

SOUTHERN PINE BEETLE

In the Fall of 1960 the Division in cooperation with the U. S. Forest Service and West Virginia Pulp & Paper Company set up a project for control of the southern pine beetle in Dare County. Since practically all of the outbreak area belonged to West Virginia Pulp & Paper Company, this company was willing to help in the cost of control. This control work was completed during the Spring of 1961. Since that time this insect has not been serious enough in this area to warrant control.

During mid Summer of 1962, the southern pine beetle was found to be building up to serious proportions in the Central Piedmont area of this State. Mecklenburg and Davidson Counties had upwards of 200 different spots each. These spots contained from a few to several hundred infested pine trees. A few spots were also found in the counties surrounding the above two counties. Because of the tremendous reproductive capacity of this insect during the peak of the summer months, it was decided to defer any type of chemical control efforts and setting up a special project until the Fall season when the insect would become less mobile because of cool weather. An all-out effort was made by the local foresters to contact each landowner that had an insect problem and to give him advice for handling his own situation.

BALSAM WOOLLY APHID

During the Summer of 1960 approximately 100 acres of the fir trees in Mount Mitchell State Park were sprayed under contract. The chemical used in this operation was a 2% miscible oil. This spray operation was based on information gained in a pilot test which had been carried out the preceding year. It was found later that

this spray application did not obtain the desired results. In the Summer of 1961 a project was set up to test different insecticides on a large scale in order to determine which would be most effective against the balsam woolly aphid. Approximately 12 acres were sprayed. It was found that Benzene-Hexachloride was the most efficient insecticide tested. Plans were then made, and in the Spring of 1962 the Division of State Parks purchased their own spray equipment and started the spray application to control this insect. It should be pointed out, however, that because of the great expense involved, that no effort is being made to protect all of the State Park area and that this is merely an attempt to preserve some of the fir trees in this area.

OAK WILT

There are encouraging results from the control activities which have been directed against this disease over the past several years. During the period of this report efforts were continued toward its control. These efforts consist of attempting to locate each diseased tree by aerial survey. Each infected tree that is located is then cut and sprayed with an insecticide-fungicide. This prevents insects from carrying the disease organism to healthy trees. Oak wilt still is confined to five counties (Buncombe, Haywood, Madison, Swain and Jackson). Less than 100 trees were killed by this disease during the Summer of 1962.

WHITE PINE BLISTER RUST

The work in the control of white pine blister rust primarily in northwestern North Carolina continued during the past two years. All white pine plantations being established in hazardous areas are being checked to prevent trees being planted where they will later become diseased. Also surveys are made to locate natural stands that have become infected by this disease. Where control is needed, this work is carried out. The landowner helps furnish labor for this control work.

OTHER PESTS

The elm spanworm has continued its defoliation of hardwood trees in southwestern North Carolina. The pine sawfly epidemic in the Northern Piedmont area has subsided somewhat. Other sawfly outbreaks have occurred in lesser intensity. Numerous other insects have presented special problems. Special control projects were not justified in these cases because of economic and technical limitations. However, the landowners concerned were given what technical information was available to prevent losses from these pests.

SMALL WATERSHED PROGRAM

The Division provided, through cooperative project agreements with the U. S. Forest Service and also in cooperation with various Soil Conservation Districts, technical forestry assistance on seven of the 18 P. L. 566 small watershed projects approved for action.

The Division initiated the forestry phase of this program on October 15, 1958, on the Abbotts Creek Watershed. The Abbotts Creek project, originally paired with Deep Creek; and the Mud Creek project, originally paired with Muddy Creek, were both suspended on June 30, 1961.

A third Watershed Forester was employed upon the suspension of the Abbotts and Mud Creek projects to provide a separate project forester for the Deep, Muddy, and Town Fork Creek watershed projects. Federal funds were allotted to provide special forestry technical assistance and critical area tree planting on only these three projects. Therefore, Service Forester personnel were used to handle the forestry phase on the Ahoskie, Bear, Cutawhiskie, and Grindle Creek watershed projects.

FORESTRY ACCOMPLISHMENTS ON P. L. 566 WATERSHED PROJECTS

	Period 1958-1960	During Biennium 1960-1961	Total To Date
No. Woodland Conservation Plans Prepared	91	265	356
No. Acres On Which Tech. Asst. Provided	5,041	14,392	19,433
No. Acres Marked for Hydrologic Stand Improvement	45	782	827
No. of Critically Eroded Acres Planted in Trees	141	307	448
Other Acres on Which Planting Asst. Given	292	854	1,146

Present plans call for the employment of additional Watershed Foresters to provide forestry technical assistance and reforestation assistance on at least five new projects during the next Biennium. These projects will probably be the Conetoe Creek, Crabtree Creek, French Broad River, Fourth Creek, and Mosely Creek-Tracey Swamp watersheds.

MINERAL RESOURCES

The Division of Mineral Resources, which corresponds to the geological survey of many states, is the official representative of the Department of Conservation and Development in the fields of geology, mineral resources, mining and treatment of minerals. As designated by State law, "It shall make such examination, survey and mapping of the geology, mineralogy and topography of the State, including their industrial and economic utilization as it may consider necessary". Its objective is to improve the general welfare of North Carolina through a better understanding and a wiser use of its geology, topography and mineral resources. The programs of work and the services of the Division may be summarized as follows:—

1. The Division, through its own personnel and in cooperation with the United States Geological Survey and other agencies, carries out systematic surveys on the geology and mineral resources of specific areas which may be treated as units. Such work includes detailed topographic and geologic mapping, systematic sampling, petrographic study, and a general appraisal of the geology and mineral resources of each area surveyed.

2. The Division carries out, in cooperation with various state and federal agencies and industrial concerns, a wide range of mineral investigations restricted to the study of a specific mineral or mineral resource. Individual deposits and prospects are studied, mapped and sampled. Mineralogical and petrographic studies are carried out and a general appraisal is made of each deposit and the resource as a whole.

3. The Division cooperates with landowners, prospectors, small miners and citizens of the State by identifying and reporting on specimens of rocks and minerals sent in for identification. Also, upon request, mineral deposits are examined and information furnished as to their value and uses when it appears that the furnishing of such information will advance the general welfare of the State.

4. The office of the Division of Mineral Resources serves as a clearing house for this information through the publication of bulletins, economic papers, information circulars, and reports of investigation. These publications which have considerable educational value are sold at nominal prices intended to cover the costs of printing.

GENERAL

Since 1958, North Carolina's mineral production has increased each year and new record highs were set in 1960 and 1961. The 1960 value of minerals produced was \$45,096,000 or \$3,445,000 greater than in 1954, the previous high year. In 1961 minerals produced were valued at \$50,126,000, which was \$5,028,000 greater than in 1960, the previous high year. The biennium 1960-62 was the best in the history of the State and the outlook for 1962-1964 appears to be equally promising.

The principal minerals produced in the State in 1961 in order of value were (1) stone, (2) sand and gravel, (3) copper, (4) mica, (5) tungsten, (6) feldspar and (7) clays. North Carolina was first in the Nation in the production of lithium minerals, feldspar, crushed granite, and sheet and scrap mica; second in olivine and tungsten; and third in talc and pyrophyllite combined.

Non-metallic minerals continued to be the most important mineral products and accounted for 86 percent of the 1961 total value. Stone, the principal mineral product of the State increased 8 percent in both tonnage and value; crushed stone production was up 10 percent in tonnage and value, whereas dimension stone decreased 3 percent in quantity and value. Sand and gravel production increased 11 percent in tonnage and 14 percent in value; sand increasing 15 percent in tonnage and 20 percent in value and gravel increasing 5 percent in tonnage and 9 percent in value. Sheet mica decreased 9 percent in quantity but increased 45 percent in value; scrap mica increased 13 percent in tonnage but declined 8 percent in value. Crude feldspar, including flotation concentrates, decreased 7 percent in tonnage and 11 percent in value; ground feldspar decreased 3 percent in tonnage and 11 percent in value. Total clay production increased 5 percent in tonnage and 7 percent

in value. Lithium ore (spodumene) production was considerably higher than in 1960, tonnage increased 82 percent and value increased 26 percent. Both crude and ground talc and pyrophyllite declined in tonnage and value for the second consecutive year.

Metals accounted for 14 percent of the total value of the State's mineral production in 1961. Copper increased 14 percent in tonnage and 7 percent in value. Tungsten Mining Company operated its mine and mill continuously in 1961 for its first full year of active production since 1957. As a result, tungsten production was up more than 75 percent over 1960. By-product lead, gold and silver were also recovered in considerably increased quantities.

The average annual mine value of minerals produced in North Carolina during the biennium 1960-1962 was \$47,562,000. If the values added by processing and manufacturing mineral products from North Carolina minerals were added to the mine value, it would give a total annual value of approximately \$75,000,000.

If the mine value of the State's mineral production in 1961 were combined with the value added by processing and manufacturing, and the value of stone and glass products manufactured in the State from North Carolina minerals, it is conservatively estimated that the value of the mineral industry to the State of North Carolina in that year would be in excess of \$125,000,000.

MINERAL INDUSTRY DEVELOPMENTS

A number of important developments took place in the mineral industry of North Carolina during the biennium 1960-1962. Appalachian Sulphides, Inc., continued to operate successfully at the Ore Knob Mine in Ashe County. Early in 1962, Appalachian Sulphides was acquired by Copper Range Company of New York and an extensive drilling program to enlarge the reserves of copper and other sulphides was begun. The copper concentrates from the Ore Knob mine are now being shipped to the White Pine Company of northern Michigan. The Tennessee Copper Company took over the Silver Hill mine in Davidson County in 1959 and after extensive explorations and shaft sinking in 1960 and 1961 abandoned the mine due to the failure to discover workable reserves of lead, silver and zinc on the property.

The Tungsten Mining Corporation, a Division of Howe Sound Company, reactivated its Hamme Tungsten Mine in Vance County on April 1, 1960. Numerous improvements and innovations have been made in the mining operations and the mine has been operating at capacity since January 1, 1961. The Cranberry Magnetite Corporation has continued exploration work and improved its facilities at the Cranberry Magnetite Mine in Avery County and is now shipping small amounts of iron ore. There was continued activity in the lithium industry of the State. Texas Gulf Sulphur Company, after some exploration, dropped its option on the (spodumene) lithium property of Basic Atomics, Inc., but both Foote Mineral Company and Lithium Corporation of America continued to make expansions and improvements at their North Carolina plants. Foote Mineral Company improved grinding methods and moved a grinding plant from Cold River, New Hampshire to Kings Mountain. In 1961 the production of spodumene (lithium ore) increased 82 percent in tonnage and 26 percent in value.

Wiseman Mining Company completed an olivine processing plant in Yancey County and in 1961 the production of olivine from Jackson County, where Harbison-Walker Refractories Company operates an olivine mine, and Yancey County increased 56 percent in tonnage and 77 percent in value. Scrap mica, used for producing ground mica, continued to be of major importance and the production increased from 47,000 tons in 1960 to 54,000 tons in 1961, but the price declined 8 percent. The production of sheet mica declined from 430,193 pounds in 1960 to 390,870 pounds in 1961, but the value increased 45 percent. Production of sheet mica continued at about the 1961 rate through June 30, 1962 when the General Services Administration closed its Mica Purchasing Depot at Spruce Pine. There were no major developments in the feldspar industry and North Carolina continued to be the leading producer. However, crude feldspar, including flotation concentrates, decreased 7 percent in tonnage and 11 percent in value in 1961, the average value decreasing from \$10.27 to \$9.83 per long ton. Ground feldspar decreased 3 percent in tonnage and 11 percent in value.

Clays and shales used in the manufacture of brick, sewer pipe, tile and light-weight aggregate continued to be of major importance and increased 5 percent in

tonnage and 8 percent in value in 1961. Kaolin increased 11 percent in tonnage and 4 percent in value. Three plants are producing lightweight aggregate in North Carolina, while a plant located at Leaksville Junction in Virginia is supplied with clay from Rockingham County, North Carolina. Triangle Brick Company put a new plant into operation near Durham; Boren Clay Products built a new plant at Pleasant Garden; Cunningham Brick Company expanded its Thomasville plant; and Cherokee Brick Company increased the capacity of its Moncure plant. Currently, North Carolina is producing one of three brick manufactured in the southeast, one of ten in the Nation and ranks third in the Nation in the production of heavy clay products.

Stone which is North Carolina's principal mineral product increased 8 percent both in tonnage and value. Crushed stone production was up 10 percent in tonnage and value, while dimension stone decreased 3 percent in quantity and value. Superior Stone Company which had over 30 operations in North Carolina became a Division of Martin-Marietta Corporation, which was formed on October 10, 1961, by the Consolidation of American-Marietta Company and the Martin Company of Baltimore, Maryland.

OIL EXPLORATIONS MADE

On October 12, 1960 a lease was granted to Roderick A. Stamey of Houston, Texas, to explore for oil, gas and sulphur beneath the State-owned bottoms of sounds, rivers and creeks of southeastern North Carolina, southwest of a line from New Bern to Beaufort. The lease was made for a two-year period with automatic extension for another two-year period, provided 12,000 feet of hole were drilled for oil, gas and sulphur during the first two-year period. By the same token, the lease may be extended two years at a time for a period not to exceed 25 years. In the spring of 1961, this lease was assigned to Atlantic Coast Explorations, Inc. As of June 30, 1962 no drilling had been started under this lease. Coastal Plains Oil Company, which now holds the lease granted to J. E. Fitz-Patrick on October 28, 1957, drilled three wells totaling 14,618 feet of hole in Carteret County in August, September and October 1961. This drilling renewed the lease to October 28, 1963.

Ideal Cement Company which acquired Voluntee Cement Company of Knoxville, Tennessee in 1959, transferred the interest in cement materials from the vicinity of Maple Hill, Pender County to the vicinity of Castle Hayne, New Hanover County and announced plans to construct a 3.5 million barrel annual capacity cement plant near Castle Hayne. As of June 30, 1962 a cement distribution terminal had been completed at Wilmington. Storage silos and loading docks had been completed at the plant site on the Northeast Cape Fear River and the plant and an office building were under construction. Production is planned for July 1963.

The most important developments in the mineral industry of North Carolina during the biennium 1960-1962 took place in the phosphate deposits of Beaufort County, where large reserves of phosphate ore have been established. Between June 1, 1960 and January 30, 1961, A. L. Nash, Jr., of Concord, carried out three experimental attempts to mine phosphate in Beaufort County. These experiments created new interest in the deposits. About the middle of 1961, Texas Gulf Sulphur Company became interested in the area and began acquiring land and planning exploration programs. Later in the year, Magnet Cove Barium Corporation, one of the Dresser Industries, and Bear Creek Mining Company of Kennecott Copper Corporation became interested in the area. Each of these companies approached the Department of Conservation and Development and requested leases on phosphate deposits beneath the bottoms of Pamlico and Pungo rivers which run through the heart of the phosphate area. At a meeting at High Point on January 22 and 23, 1962, the Board of Conservation and Development recommended the leasing of the deposits beneath Pamlico and Pungo rivers on a sealed bid basis. Accordingly, an Option to Lease proposal was prepared and presented to the Board for approval at New Bern on April 2 and 3, 1962. The Board of Conservation and Development approved the proposal and requested the Department of Administration to advertise the deposits and receive sealed bids on them.

In preparing the proposal, the Pamlico and Pungo rivers were divided into five minute blocks by the use of longitude and latitude. The Pamlico River was divided

into six blocks designated, A, B, C, D, E, F, and the Pungo River was divided into three blocks designated G, H, I. The Option to Lease proposal contains a five year Option period and spells out the terms and conditions under which the Option may become a Lease. The biddable part of the proposal was to be a percentage royalty of the market value of the first marketable product of phosphate and other minerals. Oil, gas and sulphur were excluded from the proposal. An Option period of five years was established during which time certain expenditures for exploration are required. During the Option period a rental of 25 cents per acre is required for the area under Option. The Option may become a Lease at any time during the five year period at the request of the holder. When the Option becomes a Lease, the holder must pay three dollars per acre per year rent plus the royalty bid.

Bids were receivable through 2:30 P.M. June 4, 1962. Bids were received from Magnet Cove Barium Corporation, Texas Gulf Sulphur Company and Pamlico Mining and Chemical Corporation. Pamlico Mining and Chemical Corporation was created jointly by Kennecott Copper Corporation and American Agricultural Chemical Company as of May 1, 1962 to engage in exploration, mining and processing phosphate. Magnet Cove Barium Corporation bid 3.7 percent of the market value of the first marketable product of phosphate recovered from blocks, G, H, I, of the Pungo River. Texas Gulf Sulphur Company bid 12.5 percent of the market value of the first marketable product of phosphate recovered from block D of the Pamlico River. Pamlico Mining and Chemical Corporation bid 5.259 percent of the market value of the first marketable product of phosphate recovered from block D of the Pamlico River. On July 10, 1962, the Board of Conservation and Development in session at Boone, accepted the bids of Magnet Cove Barium Corporation and Texas Gulf Sulphur Company. Subsequent to that date, the Option to Lease proposals recommended for Magnet Cove Barium Corporation and Texas Gulf Sulphur Company have been approved by the Council of State and signed by the Governor of North Carolina. Exploration is actively in progress and Pamlico Mining and Chemical Corporation has acquired options on several thousand acres of land in Beaufort County and is actively exploring for phosphate.

WORK OF THE DIVISION

The work of the Division of Mineral Resources is divided into two major categories: (1) commodity studies and (2) geologic studies. Commodity studies cover specific minerals or mineral deposits such as asbestos, beryl, phosphate, etc. Geologic studies include detailed geologic mapping and examination of mineral deposits.

Commodity studies during the biennium 1960-1962 included (1) asbestos deposits, (2) beryl resources, (3) phosphate in eastern North Carolina and (4) preparation of Economic Paper 67. A detailed report on the asbestos deposits of North Carolina including field studies and petrographic analyses has been completed and a report is about ready for publication. The North Carolina State College's Mineral Research Laboratory in Asheville is cooperating informally on the project at no cost to the Division of Mineral Resources by determining the amount and quality of the fibre that can be recovered from the deposits. As soon as this work is completed, a report will be sent to the printer. A study of beryl in North Carolina has been completed and a report Information Circular 17, "Beryl Occurrences in North Carolina", has been published. The Division of Mineral Resources in cooperation with the United States Geological Survey, the North Carolina Department of Water Resources and Beaufort County, started early in 1962 a Gammaray logging study to determine the extent, thickness and quality of phosphate deposits in Beaufort County. The field work is progressing according to schedule and should be completed early in 1963. Economic Paper 67, "Mineral Industry of North Carolina from 1954 through 1959", was prepared and published in 1961.

Geologic mapping during the biennium included geologic mapping of the Albemarle 15-minute quadrangle and Moore County. Both of these projects were completed and in press at the end of the biennium on June 30, 1962. They should be available for sale in a few weeks. In addition a project involving the mapping of the Brevard schist belt was started early in 1962.

As authorized in the budget of the Division of Mineral Resources by the 1961 General Assembly an office was established in Asheville as of December 1, 1961.

The staff members assigned to this office are mapping the Brevard schist belt and carrying out other important geological work in western North Carolina.

COOPERATION WITH U. S. GEOLOGICAL SURVEY

Cooperation with the U. S. Geological Survey was continued in the geologic mapping of four quadrangles in the Denton area of Davidson County. This work is due to be completed by the end of 1962. Cooperation on topographic mapping in North Carolina was renewed with the U. S. Geological Survey on July 1, 1961. Topographic mapping of three quadrangles has been completed in Northampton County and work has been planned on several quadrangles in Stokes County. Formal cooperation with the U. S. Geological Survey which was started on a small scale several years ago is beginning to pay dividends. A recent letter from the Chief Geologist, U. S. Geological Survey, summarized 14 geologic projects being carried out independently by that agency in North Carolina. Among the projects listed was geologic mapping in four quadrangles in the Shelby area and three quadrangles in the Concord and Mt. Pleasant area.

MISCELLANEOUS SERVICES

In addition to the work outlined above, the Division of Mineral Resources serves as a clearing house for information on the geology and mineral resources of North Carolina. The Division cooperated with land-owners, prospectors, small miners, and people interested in the geology and mineral resources of the State by rendering services not otherwise available. Information and assistance were furnished on asbestos, clays, mica, pyrophyllite, spodumene, stone, sand and gravel, oil and gas possibilities of the State, radioactive and other minerals. Approximately 1500 rock and mineral specimens were examined for citizens of the State and information furnished as to their identity and value. This type of work is considered important and prospectors and collectors are encouraged to send in specimens for examination. Through the examination of such specimens, some of our most important mineral deposits have come into production. The Division serves as a clearing house for the distribution of technical reports on the geology and mineral resources of the State. During the biennium, more copies of maps, bulletins, economic papers and information circulars were sold than during any like period in the history of the Department.

The following publications were issued during the biennium:

Economic Paper 67, Mineral Industry of North Carolina from 1954 through 1959, by Jasper L. Stuckey and Stephen G. Conrad.

Information Circular 17, Beryl Occurrences in North Carolina, by William F. Wilson.

GEODETIC SURVEY

The Geodetic Survey Division, youngest and smallest division of the Department, was activated in July 1960. Hence this biennial report covers the entire history, to date, of the division.

Chapter 102, General Statutes, as amended by action of the 1959 Session of the General Assembly, is the basic enabling act for this division. Fundamentally the duties of the division are "To make or cause to be made from time to time such surveys and computations as are necessary to further or complete the North Carolina Coordinate System. The agency shall endeavor to carry to completion as soon as practicable the field monumentation and office computations of the Coordinate System . . ." (1939, c 163, s. 9) and, under the law of 1959 (102-12), "shall prepare for publication and cause to be published before July 1, 1962, a map or maps setting forth the location for both horizontal and vertical control, together with such other pertinent data as the agency may direct for implementation of the North Carolina Coordinate System . . .".

"Geodetic Survey" is a specific, technical term which should, in this first report, be defined. A geodetic survey is a survey (precise location of survey markers and bench marks) of such accuracy and precision and covering so large an area, such as a city, county or state, that the size and shape of the earth must be considered in its execution and computations. In order to save the local surveyor the task of computing his surveys with rather complex geodetic equations, a mathematical system, called the State Coordinate System, was developed whereon the usual, well known methods of east-west and north-south coordinates are used.

The purpose and use of the end product of this division, precisely located permanent survey markers, is well understood by engineers and surveyors, but is not so well known to the general public. A few brief comments would be in order.

MAPS MUST SHOW DETAILS

All maps, to achieve their purpose, must show details clearly, accurately and in proper relation to all other details. This is true whatever the details are—topographic, geologic, roads and highways, land use, city details, transmission lines, dams, tax maps, city, county and state boundaries, water shed boundaries, water and sewerage systems, airfields, missile sites, parks, forest boundaries, nautical and aeronautical charts, tunnels, lakes and other recreational areas. As the steel frame of a building holds the details of doors, windows, brick, elevators and stairways in their desired true relation to each other, so the net of precisely determined geodetic survey markers holds all the above "details" in their true relation one to another.

In this day and age scientists, with their studies, and engineers, with their projects, occupy a foremost position in this country and in the world. Practically all engineering projects need accurate location of details, either in a matter of elevation above sea level or of location on the face of the earth. The basic services for existence in a community depend on detailed engineering studies over large areas. The water we use involves studies of drainage at distant areas, location of dams to form reservoirs, design and installation of multi-million dollar distribution systems and location of pumping stations. The electricity we use involves the location of and study of river drainage areas, dam sites for power plants, right of ways and construction of transmission lines. The location of radio and TV towers, microwave stations and other tall structures which are hazards to air traffic must be reported to government officials with a high degree of accuracy. In highway design and construction, a tremendous job in this state, accurate location so as to obtain maximum efficiency and lowest cost is a fundamental engineering project which needs the data furnished by geodetic control surveys. In fact, one cannot name an engineering project which covers any appreciable area that does not need and use the information and data which are the products of the geodetic survey work.

The 1959 General Assembly enacted amendments to Chapter 47 of the General Statutes relating to Plats and Subdivisions and Land Surveys and Recording of Same." One item under "Plats and Subdivisions: Mapping Requirements" specified that: "Where the map is the result of a survey, one or more corners shall, by a

system of azimuths or courses and distances, be accurately tied to a monument of some U. S. or State Agency Survey System, such as the U. S. Coast and Geodetic Survey Systems, where such monument is within 2,000 feet of said corner. Where the North Carolina Grid System coordinates of said monument have been published by the North Carolina Department of Conservation and Development, the co-ordinates of the referenced corner shall be computed and shown in X and Y ordinates on the map."

This requirement maintains the high quality of the survey which is so desirable in this time of high and ever increasing land values and furnishes definite, unique, mathematical boundary points. The substitution of a definite boundary for the older and sometimes very vague boundary descriptions of years ago is a big step in eliminating costly disputes and also in furnishing a boundary which can be accurately re-established despite destruction of all local boundary markers. Hence, the benefits derived from the existence of basic geodetic survey monuments reaches down to the individual property owner.

Since its activation, the division has assembled its staff, trained its engineers in the precise methods of its surveying and has made strides in its allotted task of establishing new survey markers.

MANY NEW MARKERS SET

The staff is small, consisting of nine engineers and engineering aides (all field men) and one stenographer.

Three hundred and thirty (330) new, permanently marked survey markers have been established in the State. One hundred and thirty-eight (138) have been in the High Point area and fifty-two (52) stations in the Charlotte area. One hundred and forty (140) stations are in the Raleigh-Durham area except for a few isolated stations. Inquiries and requests for control stations have been received from a number of communities and engineers. One very accurately measured base line has been established in Raleigh. It will be used to calibrate and check our electronic distance measuring device. This electronic device is the latest in measuring distances very accurately (1 part in 300,000) by electronic means rather than the old method of chaining. As this survey is the basic survey for the State of North Carolina, its accuracy must be of the highest order.

Our basic function, to establish accurately located survey markers on the North Carolina Coordinate System, has had a good start and will be our main objective throughout the years.

The mandate to publish maps indicating location of survey control markers has been followed and the dead line met. One hundred maps, each covering a specific county, have been compiled, published and distributed. The correcting and maintaining such maps will be standard procedure for the division.

The Geodetic Survey Division stands ready to consult with any community, engineer, surveyor or individual about surveying matters, and to furnish the basic geodetic data which exist throughout North Carolina.

STATE PARKS

A state park system has one basic purpose: TO SERVE PEOPLE.

... THOMAS W. MORSE.

These words first appear in the Department of Conservation and Development report for the biennium for the period ending June 30, 1950. During this biennium, the North Carolina State Park System had been raised to Division status in recognition of the growing importance of the State Park program. Fifteen years of growth under the guidance of Thomas W. Morse—a guidance to continue through eleven more years of growth before his resignation on June 30, 1961.

While his leaving was a great loss to the State, Mr. Morse's dedication, wide vision and long range planning left the foundation and framework upon which the North Carolina State Park System continues to build and to move forward.

THE PURPOSE

To Serve the People of North Carolina and Their Visitors by:

1. Preserving and protecting natural areas of unique or exceptional scenic value not only for the inspiration and benefit of the present generation, but, also, for generations to come. This is **THE BASIC SERVICE** and it should never be lost sight of. North Carolina has an abundance of these areas due to its having the greatest diversity of natural plant life conditions of any Eastern State.

2. By establishing, maintaining, and operating areas which provide opportunities for recreational use of natural resources—outdoor recreation and outdoor living in natural surroundings. With the abundance of forest land and the great areas of salt and fresh water, areas could be established with opportunities for recreation that makes use of all natural resources.

3. By portraying and explaining plant and animal life, geology, and all other natural features included in the various areas in the state park system. Intelligent use of the various areas in the state park system can only come about through the explanation and portrayal of the plant and animal life, geology, and all other natural features.

4. Preserving, protecting and portraying scientific sites of statewide importance.

North Carolina has received a generous portion of a great national heritage—natural areas where one may find recreation, relaxation, spiritual, and aesthetic values. The demand on the state parks now and in the future is in that phase of conservation which makes possible the use of **natural** resources to conserve **human** resources; thus, providing lasting social benefits.

PROGRESS REPORT

The purpose and objectives of the Division of State Parks may be clearly defined, but in order to fulfill its purpose and objectives, the procedures involved must be divided into nine major phases:

1. Operation for Public Use
2. Maintenance
3. Interpretive and Public Use Programs
4. Protection and Law Enforcement
5. Business Management
6. Information and Education
7. Personnel Administration
8. Planning, Development and Construction
9. Cooperation with and Services to Other Agencies

Marked progress has been made in all nine phases of work and is summarized as follows:

I OPERATION FOR PUBLIC USE

"Areas that provide opportunities for recreational use of natural resources."

There has been a continued increase in demand for public use of the North Carolina State Parks. Attendance for the biennium ending June 30, 1962 was 3,324,698, an increase of seven percent over the previous two years.

In August of 1960, the North Carolina State Parks participated in a park user study conducted by the Outdoor Recreation Resources Review Commission. This Commission was created by Congress with its goals "To preserve, develop, and secure accessibility to all American people of present and future generations such quality and quantity of outdoor recreation facilities as will be necessary and desirable for individual enjoyment, and to assure the spiritual, cultural, and physical benefits that such outdoor recreation provides." Through inventories of outdoor recreation resources, the Commission determines types and locations required by present and future generations. Comprehensive information is obtained and recommendations for reaching its goals are made available to the President, the Congress and the individual states concerned.

The North Carolina State Park included in this particular study was one of only nine selected from throughout the nation. In all, twenty-four federal, state and county areas were included.

One of the more interesting facts included in the report of this nationwide study is that more groups (53.1%) listed relaxing as an activity in which they participated than any other single activity. Acknowledging the fact that relaxing is not usually a separate, discernable activity, the value of simply 'getting outdoors' is vividly illustrated. Not only did these many visitors refer to relaxing as an activity in which they participated—they also gave it high rank as an activity most enjoyed during their visit.

Again the basic purpose of the North Carolina State Parks comes to the forefront. "Preserve and protect natural areas of unique or exceptional scenic value for the use, enjoyment and benefit of not only the present generation but of generations to come." The state parks are areas in which a person can more easily relax. In such an atmosphere, more benefits are derived from other activities. Swimming, picnicking, boating, fishing, hiking—all are more enjoyable.

The popularity of 'relaxing' is another indication of improvement in quality of state park use. The quantity increase is evident in the attendance increase during the biennium. The better park uses were up, family camping 21%, organized camping 19%, vacation cabin use 13%, and hikers 8%. There was a tremendous increase of interest and participation in the interpretive use program.

Another striking feature of the state park program was shown by the August, 1960, study. Families or families plus friends or relatives composed 77.6% of total visitation of the North Carolina State Park included in the study.

To summarize: the North Carolina State Parks have shown improvement in quality of service. More park users have been served with a higher percentage of usage being preferred family usage.

The Division of State Parks has made progress in its effort to achieve its purpose: TO SERVE PEOPLE.

II MAINTENANCE

"Protect the public's investment."

On September 12, 1960, Hurricane Donna caused severe damage to natural features, structures and improvements at Fort Macon State Park. Considerable damage was also done at Cliffs of the Neuse, Jones Lake and Pettigrew State Parks and at Singletary Lake Group Camp. The Governor and Council of State allotted \$35,000 from the Contingency and Emergency Fund to repair damages to structures and remove damaged trees and other vegetation at these state parks. The repairs have been completed but unfortunately some damage to natural features such as beach erosion and destruction of vegetation is irreparable.

Maintenance is a continuous problem. The facilities in the state parks must be kept in a usable condition for the enjoyment of park visitors and for the protection of their health and safety.

The variety of maintenance jobs is almost unbelievably diversified. The skills of carpenters, masons, electricians, plumbers and many others are required. Extra labor is hired for some skilled services and is needed when the volume of work is too great for permanent personnel to complete projects on schedule. Through on-the-job training, the number of skills developed by the permanent employees has been increased so that more and more jobs can be done without cost of extra labor. Repair jobs range from the very simple to the complete reconstruction of buildings.

Utility maintenance on a state park can be likened to that of a small town. Each has its water and sewer systems, its roads with repair and sign problems. Electrical systems must be maintained. Each must be organized for fire control and equipment for this work must be maintained in first-class condition.

More and more emphasis is being given preventive maintenance. Longer lasting materials and better methods for their use provide repairs to facilities which will make them more maintenance free.

Increased funds for maintenance have stepped up the program and, if continued for a few years, should, with the better materials and methods, bring the state parks to the desired state of repair. At the present time, a large portion of the cost of park operation is in costly repair work to older facilities.

III INTERPRETIVE AND PUBLIC USE PROGRAMS

"Help park users to a better knowledge and understanding of the natural features."

In these times when the public turn more and more to nature for relaxation and for rest and relief from the pressures and tensions of modern living, the most important values of state parks are those derived from unspoiled natural conditions. Therefore, one of the most important services rendered by state parks is the interpretive program. During this biennium, more people participated in interpretive programs than ever before. These programs were designed around self-guiding nature trails, conducted walks, campfire programs, illustrated talks, nature crafts demonstrations, and the interpretation of all natural features such as geology, plants, animals, natural phenomena, and natural processes.

During the past biennium, an expansion in the interpretive program resulted in the establishment of a natural history museum at Morrow Mountain State Park which is recognized as one of the better state park museums in the southeastern United States. Also at Morrow Mountain, the Francis J. Kron house, doctor's office and flower house were reconstructed with the assistance of the Stanly County Historical Society. Further expansion resulted in the publishing of trail guides for Morrow Mountain and Mount Mitchell State Parks, as well as a historical guide at Fort Macon State Park.

During this biennium, summer naturalists were employed at six state parks (Cliffs of the Neuse, Hanging Rock, Morrow Mountain, Mount Mitchell, Reedy Creek, and William B. Umstead); and these men carried out planned interpretive programs during the summer months. These programs are extended into the spring and fall months on weekends at Morrow Mountain and William B. Umstead State Parks. Trained personnel also conduct interpretive tours at two historic sites—Fort Macon and Pettigrew State Parks.

As in past years, swimming and lifesaving courses were taught in several state parks in cooperation with the American Red Cross. The Park Superintendents and Park Rangers aided many groups—large and small—to plan and enjoy their use of the state parks and assisted other groups with special programs.

IV PROTECTION AND LAW ENFORCEMENT

"Preserve and protect natural areas"

The combined threats of fire, pestilence, vandalism and trespass demand constant alertness in their prevention or early detection. In addition to the protection of the natural area, there is the responsibility for orderly operation of facilities without which our present day users can find little benefit or enjoyment.

Maintaining law and order in the state parks is done so far as possible on an educational basis. Within the scope of overall operation, it is necessary to issue

some citations and make some arrests. Educational law enforcement has proven most effective against vandalism and littering.

Grateful acknowledgment is given the Division of Forestry for their whole-hearted cooperation in the protection of the system's natural areas. Their cooperation has been in many forms. Park personnel have attended and benefited by Forestry's fire suppression training programs. Guidance and assistance has been rendered when forest fires occurred in the state parks. In pest control, a major parks problem during the biennium, Forestry has again rendered valuable technical advice and assistance. In other but no less important matters, the cooperation of this agency continues to play an important role in this segment of the state parks' protective program.

Only one serious forest fire occurred in the park system during the biennium. This fire at Mount Jefferson State Park burned over approximately twenty acres and was caused by fire escaping from the town dump. It should be noted that this fire occurred in December, one of the months in which the park is not staffed.

Other state parks having fires were: Fort Macon, 1/4 acre burned; Hanging Rock, 1/2 acre; Morrow Mountain, 1/10 acre; Reedy Creek, 1/10 acre; and William B. Umstead, 1 1/2 acres.

The fact that the five latter fires burned over a total of slightly less than 2 1/2 acres is a credit to the vigilance, alertness, and readiness of field personnel.

The Balsam Woolly Aphid infestation at Mount Mitchell State Park continues to be a matter of grave concern. The Division of Forestry and the United States Forest Service have been working continuously with the Division of State Parks to find effective control measures. In May, 1961, more extensive testing of insecticides was carried out. This study embraced the effects certain insecticides would have on wildlife, vegetation, water pollution and residual effects as well as the effect these insecticides would have on control of the aphid. These tests have proved to be extremely informative and have resulted in the finding of an effective insecticide.

The nature of the insect requires that every square inch of the balsam tree be covered by the insecticide in order to control the aphid. Due to this fact, only hydraulic, high pressure type sprayers can be used; and since all portions of the park cannot be protected, a scenic control strip has been mapped along the roads and around the public use areas. In order to protect the areas which cannot be covered by spraying, it is hoped that effective biological controls will soon be found.

Since the cost of contractual spraying has become almost prohibitive, the Division of State Parks has secured its own spray unit and has trained its own spray crew to apply the insecticide. This has resulted in a more complete and conscientious control program and has reduced the cost to approximately one-half that of contractual spraying.

At the present time, control of the Balsam Woolly Aphid is of primary importance. The aphid will continue to be one of our gravest natural enemies and maximum efforts will continue in an attempt to protect the natural beauty of Mount Mitchell as well as the vegetation, wildlife, and watershed values.

STATE LAKES

The administration of seven State-owned lakes for public use is primarily a protection and law enforcement job. Because of this fact, North Carolina's Boating Safety Act of 1959 has proven very beneficial to the Division. The benefits from the Boating Act are greatest on the four lakes with little or no State-owned shoreline. Jones, Salters and Singletary Lakes in Bladen County are within State park boundaries and are administered under state park rules, regulations and policies.

Lake Phelps in Washington and Tyrrell Counties is bordered by state park land and is administered primarily under the State Lakes Regulations. Development on the shoreline of Lake Phelps may increase the administrative problem which, up to this time, has presented no serious difficulties.

The department owns no land around Black Lake in Bladen County nor around Lake Waccamaw in Columbus County. Little public use is made of Black Lake because of its inaccessibility. Lake Waccamaw receives heavily concentrated use and its administration presents many problems some of which would be greatly relieved by land acquisition.

At White Lake in Bladen County, a small parcel of land now provides a base of operations. Administration of this badly over-used lake is still difficult but efficiency has been increased.

V BUSINESS MANAGEMENT

"Success of the program is dependent upon efficiency."

Business management includes the varied and detailed job of accounting for expenditures and receipts; purchasing and requisitioning; property inventorying and accounting; preparing and keeping current fiscal records, equipment operation records, payrolls, work records and cost records; and a number of other items. Much of the success of the whole state park program depends on the prompt and efficient execution of all business management activities. Due to better organization and personnel, there has been a decided improvement in the efficiency with which business management work has been done.

Earned receipts from the operation of state park facilities during this biennium reached an all time high of \$289,248.05—an increase of 2.5 percent over the previous biennium. These earned receipts amounted to 42.4 percent of the total administration, operating and maintenance expenditures.

VI INFORMATION AND EDUCATION

"Portray and explain plant and animal life, geology and other natural features".

This continues to be an important service administered by state parks. As more and more of the countryside is used up in commercial, urban, and highway expansion, more and more people desire and need the opportunities found in state parks.

The educational opportunities offered by state parks is unlimited. The last biennium resulted in more research conducted by the faculty and graduate students of various colleges, universities, and scientific institutes than ever before. The natural areas were used by more college and high school classes as outdoor laboratories than at any previous time.

The fourth edition of the state park brochure was published in June, 1961. This edition is the best yet and includes complete information on the state parks as well as many outstanding color and black and white photographs from the various state parks. Fifty thousand brochures were published and have been well received. They are in much demand by libraries, the various Chambers of Commerce, and Civic and natural history clubs. Over 3,200 brochures were sent to private and public schools in North Carolina. More brochures were distributed from the Raleigh office from January 1, 1962 to June 30, 1962 than during any **complete** previous fiscal year! This is graphic evidence of the overwhelming demand and interest generated by the public for state parks.

Many illustrated talks were given by both field and Raleigh Office personnel. The topics covered in these talks stressed the opportunities state parks offer for recreation, enjoyment of natural beauty, interpretation, and personal enrichment and refreshment. Invitations for these programs are greatly increasing each year.

In addition to the trail guides at Morrow Mountain and Mount Mitchell State Parks and the historical guide at Fort Macon, new publications include: SOMERSET PLACE AND ITS RESTORATION and DR. FRANCIS J. KRON.

Interest in school camps held at one of the state parks continued to grow. The number of students participating increased greatly and indications are that more and more schools will be taking advantage of this educational program conducted by the school systems.

VII PERSONNEL ADMINISTRATION

"—Effectiveness and quality of services rendered by the system are dependent upon its personnel."

Personnel of the Division of State Parks make countless personal contacts with the people of North Carolina and their visitors. For many people, this is the only

contact with an official representative of North Carolina. Special emphasis was given to raising the quality of service demanded by this fact and also to increasing know-how, efficiency, production and morale necessary for the system's complete program.

Personnel training was carried out by annual Park Superintendents' Meetings, on-the-job training, staff meetings and in training sessions on specific operational and maintenance problems.

That efforts in this phase of work have yielded dividends is evidenced in the report of park user study mentioned earlier in this report. Of the North Carolina State Park included in the study, the evaluation team of the Outdoor Recreation Resources Review Commission had this to say: "One of the outstanding aspects of this park is the administrative competence displayed by the resident park staff. This was reflected in maintenance, state of repair and operation of the area."

The organization of the Division has progressed to the degree that the preceding statement was made of a park which is representative of the system.

Turnover in personnel was not unusually high. There were eight resignations during the biennium and seven promotions. Among field personnel, all vacancies were filled by promotion when the opportunity for advancement existed. The resignation of Thomas W. Morse as Superintendent of State Parks on June 30, 1961 set off a chain reaction of promotions which extended all the way down through the ranks.

Other personnel changes were two terminations, one military leave and two job reclassifications.

VIII PLANNING, DEVELOPING AND CONSTRUCTION

"For generations to come."

PLANNING

Outdoor recreation is a major leisure time activity. It is good, wholesome, healthful use of leisure time. In the summer of 1960, ninety percent of all Americans participated in some form of outdoor recreation. While not all these activities required recreational areas as such, this figure graphically illustrates the value American people place on the out of doors. The importance of access to our outdoor heritage will grow with the population. Competition from urban and other development will be more vigorous.

The Division of State Parks has made studies and done advance planning to determine and fulfill the needs of the future.

One of the prime fields requiring considerable attention is the acquisition of the few remaining inholdings and the acquisition of new areas. The generosity of individuals or groups of individuals can no longer be depended upon if the state park system is expected to fulfill its rightful responsibility. Many areas are now receiving a public use in excess of their biodynamic capacity to recover. Several important physiographic regions are not now represented, and certain areas must be preserved for the greatest public benefit. Portions of the State are not currently served by the state park system and yet all of the people of North Carolina should receive these benefits.

LAND ACQUISITION

New Areas.

In June of 1961, the final judgment in the friendly condemnation suit necessary to clear the title to Bear Island was handed down, and this area was formally accepted for inclusion in the Division of State Parks. This generous gift of 890 acres, including Bear Island, from the Hammocks Beach Corporation and the heirs of Dr. William E. Sharpe is a most desirable addition to the state park system.

At the end of the biennium, negotiations were almost completed on the acquisition of an area on Lake Norman.

ADDITIONS TO EXISTING AREAS.

The State often acquires areas which include private inholdings, adjoining land virtually surrounded by park land or land with boundaries which makes proper protection and administration complicated if not extremely difficult. Many of these have been purchased and considerable effort is being expended to acquire all remaining such holdings. Other land necessary for the proper administration or development of the parks has been investigated and recommended for acquisition. The following tracts have been acquired:

State Park	Purchased From	Date Purchased	Acreage
Reedy Creek	Mr. and Mrs. W. B. Beddingfield ¹	Nov. 22, 1960	1
Mount Mitchell	E. Wilson and others	Dec. 12, 1961	51
Pettigrew	S. E. Davenport	Sept. 29, 1961	15.25
	S. E. Davenport	Nov. 14, 1961	23.71
William B. Umstead	Fietta Blake Estate— Undivided interest of: 5/42 interest of Jessie W. Allen	Nov. 28, 1961	21.3534
	1/42 interest of Macon Allen	Nov. 9, 1961	
	7/42 interest of Emma S. Tyson	Jan. 16, 1961	

¹ Exchange of Land.

INVESTIGATION OF PROPOSED AREAS

Chimney Rock was re-investigated in the light of a new proposal of the owners; it was, however, rejected not only because of the purchase price of \$450,000.00 for existing developments, but it is felt that the area is less adaptable to public state park uses than commercial uses.

Several interesting small areas were investigated including an existing county park on the Yadkin River in Davidson County. These were recommended for development as county parks as the size excluded their acceptance as state parks. A portion of the former Edenton Marine Air Base was investigated and rejected because the quality of the area was not that which is considered necessary for the development of an area typical of the Pamlico Sound region. Considerable field work has been done investigating an area in the Sandhills of Moore County. This area would be a most desirable addition to the system.

DEVELOPMENT AND CONSTRUCTION

The 1959 Capital Improvement Appropriation of \$480,000.00 was limited in the number of projects covered. Of these projects, the two minor ones have been completed; construction of the beach erosion project at Fort Macon was accepted in March of 1962; however, this contract has not been closed. At the end of the biennium, plans for initial construction at Hammocks Beach had been approved by the Division.

The long sought after property at Stepp's Gap was added to Mount Mitchell State Park at a total cost of \$130,000.00. This acquisition clears the way for the completion of a suitable and much needed park entrance.

Work was begun on the improvement to the access road to Mount Jefferson State Park. This work is being done by virtue of a special allocation of Highway surplus funds. Completion is expected in December of 1962.

A major outstanding item is the construction of the new park entrance road and parking area at Reedy Creek State Park. The completion of this project is being delayed by a difficult land acquisition problem.

Completion of the rental boat facility at William B. Umstead and the swimming pier at Reedy Creek State Park will permit full utilization of these newly constructed lakes.

IX COOPERATION WITH AND SERVICES TO OTHER AGENCIES

During the biennium, the Division of State Parks has cooperated in various ways with other agencies. Consultatory and other services have been provided various

public and private agencies. Among the agencies with which the Division cooperated were the U.S.S. North Carolina Battleship Commission, the Outdoor Recreation Resources Review Commission, the American Forestry Association, the Armed Services, the North Carolina Recreation Commission, the Committee of Fifteen on Parks for America, and the North Carolina Academy of Science. In October of 1961, the Division was host to the Association of Southeastern State Park Directors' Conference at Morrow Mountain State Park.

The Division is most appreciative of the hearty cooperation and assistance received from a number of State and Federal agencies. Special appreciation is due the other divisions of the Department of Conservation and Development, the State Highway Commission, the Wildlife Resources Commission, the United States Forest Service, the National Park Service, and the Property Control and Construction Division of the Department of Administration.

THE GOAL

The ultimate goal toward which the Department of Conservation and Development, through its Division of State Parks, is working is the establishment, development and operation of a system of state parks which will preserve and protect permanently the most important scenic and scientific sites in the State; provide for the people of North Carolina adequate opportunities for outdoor recreation in natural surroundings; and portray and explain the natural and scientific features of the state parks.

A recent survey has shown that park facilities should be provided to accommodate eight to ten percent of the population within an average of up to forty-four minutes drive **on any single day**. This figure has been projected to an estimate of fifteen percent of total population on **an average Sunday afternoon!** Other authorities in the field of outdoor recreation concluded that to meet **present** demands, each state should have three acres of land per 100 persons of state population, and that within thirty years, eight acres of state park land will be required per 100 persons. **North Carolina State Parks have a long way to go to meet present demands and much further to go to meet future demands.**

In order that the Division of State Parks may reach its goal, certain needs are evident:

1. Sufficient Capital Improvement Appropriations to Complete Land Acquisition and Development at Existing State Parks and to Provide Funds for Acquisition and Development of New State Parks.

Sufficient funds are necessary to complete land acquisitions at the present state parks in order to eliminate interior holdings and irregular boundaries and thus provide for the protection of state property from fire, vandalism, and other damage. The lack of these funds also prevents the fullest development of interpretive and public use facilities.

Funds are also needed to purchase and develop lands for new state parks so that (1) all sections of North Carolina may benefit from state park services; (2) certain areas may be preserved for their greatest public benefit; (3) existing state parks will not be unnecessarily deteriorated by overuse. Mount Mitchell is the only state park that has been purchased and it was purchased 45 years ago. Since that time, the only new state parks have been those donated through the generosity of certain individuals or organizations. With the current population explosion and the demands for urbanization and its ramifications, this mode of acquisition cannot be expected to continue. Therefore, it is imperative that outstanding areas be acquired now before they are buried under steel and concrete.

2. Sufficient Numbers of Technical Personnel Required for Sound Planning and Economic Development of the State Park System.

The only economical and efficient way to develop the state park system is to have a complete complement of trained, efficient technical personnel to plan all phases of state park activities. Sufficient funds are also needed to provide these personnel with the opportunity to gain extra beneficial knowledge through various short courses and work shops.

3. Sufficient Increases in the State Park Maintenance Budget to Adequately Maintain and Operate the Existing State Parks for Public Use.

State park funds are still grossly inadequate to maintain and operate the state parks for the volume of public use they receive. More funds are needed to expand the interpretive facilities so that the greatest potential of this service may be reached.

TABLE 1
STATE PARKS PUBLIC USE RECORD
CAMPER DAYS

NAME OF AREA	TOTAL ATTENDANCE		PICNICKERS		TENT & TRAILER		ORGANIZED		SWIMMERS		HIKERS		CABINS		FISHING	
	FY 1961	FY 1962	FY 1961	FY 1962	FY 1961	FY 1962	FY 1961	FY 1962	FY 1961	FY 1962	FY 1961	FY 1962	FY 1961	FY 1962	FY 1961	FY 1962
STATE PARKS:																
Cliffs of the Neuse	125,559	123,502	37,899	41,119	4,339	5,611			21,880	24,564	12,526	10,276			178	302
Fort Macon	1460,066	2503,282	35,681	38,841					86,532	102,155	4,936	4,401			44,030	44,955
Hammonds Beach	1,111	7,534		1,670					312	2,589		1,536			40	1,880
Hanging Rock	190,762	186,091	54,797	61,504	17,331	17,343			41,602	40,206	23,644	26,602	3,459	3,788		
Jones Lake	54,162	55,021	43,478	39,383	520	35			10,364	10,306					239	181
Morrow Mountain	244,900	239,440	118,341	112,875	11,686	11,249			21,678	21,846	26,933	34,881	1,794	2,102	5,145	5,101
Mount Jefferson	10,097	14,766	4,583	4,926												
Mount Mitchell	331,663	303,716	58,738	75,900	4,256	3,808					4,755	11,961				
Pettigrew	24,074	24,228	3,296	4,058	516	654									2,478	2,541
Reedy Creek	31,495	43,698	20,240	32,505	315			4,204	3,899		2,547	6,497			436	926
Singletary Lake	11,935	10,184			37			5,654	4,802						107	273
William B. Umstead . .	150,367	177,045	40,945	48,885	5,831	6,129	17,611	17,304			14,428	16,365			450	689
TOTALS	1,636,191	1,688,507	417,498	461,666	44,516	45,144	27,469	26,005	182,368	201,666	89,769	112,519	5,253	5,890	53,103	56,848

¹ Includes 263,131 visitors to Fort area.

² Includes 283,775 visitors to Fort area.

³ Began operation on June 10, 1961.

⁴ Attendance figures kept May 1—September 30.

THE BUDGETS

CONDENSED FINANCIAL STATEMENTS

For the Biennium Beginning July 1, 1960 and Ending June 30, 1962

S. C. Holden, Auditor

MAINTENANCE FUNDS DEPARTMENT OF CONSERVATION AND DEVELOPMENT STATEMENT OF RECEIPTS AND DISBURSEMENTS

	Fiscal Year 1960-61	Fiscal Year 1961-62
Disbursements	\$3,953,218	\$4,758,332
Less: Receipts	1,482,114	1,694,042
General Fund Appropriation	\$2,471,104	\$3,064,290

SUMMARY BY PURPOSE

I. ADMINISTRATION:		
Disbursements—Appropriation	\$ 109,276	\$ 134,374
Less: Receipts	7	
Appropriation	\$ 109,269	\$ 134,374
II. COMMERCE AND INDUSTRY:		
Disbursements	\$ 290,508	\$ 331,184
Less: Receipts	654	649
Appropriation	\$ 289,854	\$ 330,535
III. ADVERTISING:		
Disbursements—Appropriation	\$ 521,119	\$ 554,348
IV. GEODETIC:		
Disbursements—Appropriation	\$ 49,034	\$ 58,116
V. MINERAL RESOURCES:		
Disbursements	\$ 45,882	\$ 82,521
Less: Receipts	1,466	1,671
Appropriation	\$ 44,416	\$ 80,850
VI. FORESTRY:		
Fire Control		
Disbursement	\$1,697,263	\$2,201,537
Less: Receipts	705,944	869,737
Appropriation	\$ 991,319	\$1,331,800
VII. GENERAL FORESTRY:		
Disbursement	\$ 65,461	\$ 68,142
Less: Receipts	12,666	12,835
Appropriation	\$ 52,795	\$ 55,307
VIII. FOREST MANAGEMENT:		
Disbursement	\$ 145,826	\$ 238,275
Less: Receipts	66,394	120,861
Appropriation	\$ 79,432	\$ 117,414
IX. NURSERIES (4):		
Disbursement	\$ 343,362	\$ 299,983
Less: Receipts	369,300	300,155
Appropriation	\$ (25,938)	\$ (172)
X. BLADEN LAKES STATE FOREST:		
Disbursement	\$ 181,466	\$ 190,512
Less: Receipts	182,102	190,834
Appropriation	\$ (636)	\$ (322)

XI. STATE PARKS (12):		
Disbursement	\$ 464,649	\$ 506,576
Less: Receipts	143,582	145,666
Appropriation	\$ 321,067	\$ 360,910
XII. STATE PLANNING:*		
Disbursement		\$ 92,763
Less: Receipts		16,248
Appropriation		\$ 76,515
XIII. DRAINAGE OF LAKE PHELPS:		
Disbursement—Appropriation	\$ 3,985	
XIV. REFERRED OBLIGATIONS:		
Transferred to Succeeding	\$ 35,386	
XV. LESS: RECEIPTS		
Funds Transferred from Preceding Year		\$ 35,386
TOTAL DISBURSEMENTS	\$3,953,218	\$4,758,331
LESS: TOTAL RECEIPTS	1,482,114	1,694,042
GENERAL FUND APPROPRIATION	\$2,471,104	\$3,064,289

SUMMARY OF DISBURSEMENTS—BY OBJECTS:

Salaries and Wages	\$2,356,091	\$2,693,872
Supplies and Materials	150,323	167,505
Postage, Telephone and Telegraph	85,130	94,228
Travel Expense	121,495	147,030
Printing and Binding	74,933	82,320
Motor Vehicle Operation	218,157	222,814
Lights, Power and Water	17,880	21,127
Repairs and Alterations	102,934	151,545
General Expense	113,649	137,382
Industrial Development and Research	18,362	12,739
Direct Advertising	375,799	400,713
U. S. Geological Survey	5,500	15,500
Phosphate Depoist Survey		10,000
Infestation Control	11,349	2,786
Drainage of Lake Phelps	3,985	
Insurance and Bonding	11,338	20,365
Equipment	185,976	536,082
Additions and Betterments	31,073	2,713
Stores for Resale	33,858	39,610
Deferred Obligations	35,386	
Totals	\$3,953,218	\$4,758,331

SUMMARY OF RECEIPTS

Social Security Refund	\$ 7	\$
Sale of Publication	2,715	2,977
Federal Cooperation—Forestry	377,383	583,080
County Cooperation—Forestry	343,863	379,058
Private Cooperation—Forestry	49,201	48,058
Sale of Tree Seedlings—Forestry	360,252	270,017
Receipts Bladen Lakes State Forest	190,106	198,774
Sale of Miscellaneous Forest Products	1,851	376
Machine Rental	249	1,305
Permits, State Lakes	15,136	16,117
Park Concession	123,454	124,229
Rental From Employees	17,897	18,416
Federal Grants *		10,848
Reproductions *		3,905
Car Rental (Federal Government)*		1,496
Funds Transferred From Preceding Year		35,386
Totals	\$1,482,114	\$1,694,042

* A separate fund in 1960-61

DIVISION OF COMMERCIAL FISHERIES
Statement of Receipts and Disbursements

OPERATING FUND

Biennium 1960-62

	1960-61	1961-62
Disbursements	\$ 242,099	\$ 311,818
Less: Receipts	104,512	105,928
General Fund Appropriation	\$ 137,587	\$ 205,890

SUMMARY BY PURPOSE

I. ADMINISTRATION	\$ 137,913	\$ 198,809
II. OPERATION PATROL BOATS	102,721	97,276
III. SHELLFISH SANITATION	1,465	1,533
IV. MARINE FISHERIES RESOURCE STUDIES		14,200
TOTAL DISBURSEMENTS	\$ 242,099	\$ 311,818

SUMMARY OF DISBURSEMENTS—BY OBJECTS:

Salaries and Wages	\$ 153,548	\$ 180,325
Supplies and Materials	15,054	16,813
Postage, Telephone and Telegraph	2,098	2,273
Travel Expense	23,556	22,059
Printing and Binding	752	2,739
Motor Vehicle Operation	16,497	21,166
Lights, Water and Heat	1,673	1,748
Repairs and Alterations	17,434	14,059
General Expense	3,295	4,375
Insurance and Bonding	1,277	879
Equipment	6,915	25,182
Additions and Betterments		6,000
Marine Fisheries Resource Studies		14,200
Totals	\$ 242,099	\$ 311,818

SUMMARY OF RECEIPTS:

Food Fish Licenses and Taxes	\$ 6,378	\$ 5,176
Oyster Licenses and Taxes	14,083	15,437
Clam Licenses and Taxes	3,225	2,969
Crab Licenses and Taxes	11,565	8,480
Menhaden Licenses	13,842	18,450
Power Boat Licenses	48,736	49,984
Escallop Licenses and Taxes	518	764
Oyster License Fees and Rent	5,425	4,069
Cottage Rent	740	600
Totals	\$ 104,512	\$ 105,929

DIVISION OF COMMERCIAL FISHERIES
Statement of Receipts and Disbursements

SHELLFISH FUND

Biennium 1960-62

	1960-61	1961-62
REVENUE:		
General Fund Appropriation	\$ 103,613	\$ 91,816

SUMMARY OF DISBURSEMENTS—BY OBJECTS

Salaries and Wages	\$ 21,371	\$ 23,720
Supplies and Materials	1,068	736
Travel Expense	2,934	2,725
Gas and Oil	1,156	543
Repairs and Alterations	1,218	793
Contract Oyster and Shell Planting	75,334	54,523
Equipment		5,423
Insurance	532	549
Additions and Betterments		1,036
General Expense		1,768
Totals	\$ 103,613	\$ 91,816

STATE PLANNING PROGRAM

Statement of Receipts and Disbursements

Biennium 1960-62

REVENUE:	1960-61	1961-62
Disbursements	\$ 51,460	*
Less: Receipts	438	
General Fund Appropriation	\$ 51,022	

SUMMARY OF DISBURSEMENTS—BY OBJECTS

Salaries and Wages	\$ 30,867
Supplies and Materials	2,013
Postage, Telephone and Telegraph	807
Travel Expense	2,721
Printing and Binding	328
Repairs and Alterations	241
Contractual Service	3,038
Rent	1,994
General Expense	4,755
Equipment	4,696
Total	\$ 51,460

SUMMARY OF RECEIPTS

Reproductions	\$ 372
Sale of Publications	66
Total	\$ 438

* Consolidated with the Department of Conservation and Development July 1, 1961

KERR RESERVOIR DEVELOPMENT COMMISSION

Statement of Receipts and Disbursements

Biennium 1960-62

REVENUE:	1960-61	1961-62
Disbursements	\$ 26,000	\$ 33,390
Less: Receipts		1,879
General Fund Appropriation	\$ 26,000	\$ 31,511

SUMMARY OF DISBURSEMENTS—BY OBJECTS

Salaries and Wages	\$ 21,115	\$ 24,910
Supplies and Materials	699	1,047
Postage, Telephone and Telegraph	598	646
Travel Expense	194	298
Printing and Binding	95	249
Motor Vehicle Operations	1,418	2,051
Lights, Power, Water	633	970
Repairs and Alterations	448	2,348
Equipment	756	793
Insurance	44	78
Totals	\$ 26,000	\$ 33,390

SUMMARY OF RECEIPTS

Funds Transferred From Commission	
Special Fund	\$ 1,879

RESEARCH TRIANGLE

Biennium 1960-62

REVENUE:	1960-61	1961-62
General Fund Appropriation	\$ 100,000	

SUMMARY OF EXPENDITURES BY PURPOSE:

Grant-In-Aid	\$ 100,000
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ATLANTIC STATES MARINE FISHERIES COMMISSION

Statement of Receipts and Disbursements

Biennium 1960-62

REVENUE:	1960-61	1961-62
Appropriation—Contingency and Emergency Fund	\$ 1,500	\$ 1,500
SUMMARY OF DISBURSEMENTS—BY OBJECTS		
Payment to Commission on Expenses	\$ 1,500	\$ 1,500

STATE ADVISORY COMMITTEE ON AVIATION

Statement of Receipts and Disbursements

Biennium 1960-62

REVENUE:	1960-61	1961-62
Appropriation—Contingency and Emergency Fund	\$ 1,000	
Less: Total Disbursements	455	
Balance Reverted to General Fund	\$ 545	
SUMMARY OF DISBURSEMENTS—BY OBJECTS		
Travel Expense—Committee	\$ 455	

COMMERCIAL FISHERIES ADVISORY BOARD

Statement of Receipts and Disbursements

Biennium 1960-62

REVENUE:	1960-61	1961-62
Appropriation—Contingency and Emergency and Emergency Fund	\$ 2,000	\$ 2,000
Less: Total Disbursements	1,445	933
Balance Reverted to General Fund	\$ 555	\$ 1,067
SUMMARY OF DISBURSEMENTS—BY OBJECTS		
Travel Expenses—Commissioners	\$ 1,445	\$ 1,067

KERR RESERVOIR DEVELOPMENT COMMISSION

Statement of Receipts and Disbursements

CAPITAL IMPROVEMENT FUND OF 1959

REVENUE:		TO DATE
Appropriation, Public Laws of 1959		\$ 40,000
Less: Disbursements		32,072
Unexpended Balance		\$ 7,928

PROJECTS:	APPROPRIATION	EXPENDITURES	UNEXPENDED
I. BULLOCKSVILLE PARK	\$ 6,950	\$ 4,108	\$ 2,842
II. SATTERWHITE POINT	21,087	21,027	60
III. WARREN COUNTY AREA	6,384	2,186	4,198
IV. NUTBUSH BRIDGE AREA	1,779	976	803
V. GENERAL AREA	3,800	3,775	25
Totals	\$ 40,000	\$ 32,072	\$ 7,928

KERR RESERVOIR DEVELOPMENT COMMISSION

Statement of Receipts and Disbursements

CAPITAL IMPROVEMENT FUND OF 1961

REVENUE:		TO DATE		
Appropriation, Public Laws of 1961		\$	91,700	
Less: Disbursements			3,003	
Unexpended Balance		\$	88,697	
PROJECTS:		APPROPRIATION	EXPENDITURES	UNEXPENDED
I. COMMUNITY BUILDING	\$ 25,000	\$		\$ 25,000
(Bullocksville Park)				
II. CENTRAL WASHOUSES	11,000			11,000
III. TENT CAMPING AREA				
(Satterwhite Point)	19,100			19,100
IV. MAINTENANCE WORKSHOP	10,400		411	9,989
V. RESIDENCE (Ranger)	8,500			8,500
VI. GROUNDS IMPROVEMENTS	3,000		2,592	408
VII. PICNIC SHELTER (Warren County)	4,700			4,700
VIII. BUILDING (Sales and Service, Flemingtown Marina)	10,000			10,000
Totals	\$ 91,700	\$ 3,003		\$ 88,697

FORESTRY AND STATE PARKS

Statement of Receipts and Disbursements

CAPITAL IMPROVEMENT FUND OF 1959

REVENUE:		TO DATE		
Appropriation, Public Laws of 1959		\$	1,173,500	
Less: Transferred to Department of Water Resources			600,000	
Appropriation—Forestry and Parks		\$	573,500	
Less: Disbursements			359,964	
Unexpended Balance		\$	213,536	
PROJECTS:		APPROPRIATION	EXPENDITURES	UNEXPENDED
I. BEAR ISLAND (Development)	\$ 172,000	\$	4,674	\$ 167,326
II. FORT MACON (Erosion)	150,000		130,647	19,353
III. MORROW MOUNTAIN (Repairs)	1,500		1,470	30
IV. PETTIGREW (Repairs)	7,000		6,993	7
V. LAND ACQUISITION (Parks)	150,000		125,457	24,543
VI. FORESTRY (Building)	26,180		26,171	9
VII. FORESTRY (Irrigation)	9,200		9,188	12
VIII. FORESTRY (Irrigation)	18,955		18,955	
IX. FORESTRY (Residence)	7,000		7,000	
X. FORESTRY (Residence)	7,000		7,000	
XI. FORESTRY (Road)	1,000		1,000	
XII. FORESTRY (Tower Cabin)	3,000		3,000	
XIII. FORESTRY (Tower Cabin)	1,865		1,864	1
XIV. FORESTRY (Tower)	8,800		8,800	
XV. FORESTRY (Tower)	10,000		7,745	2,255
Totals	\$ 573,500	\$	359,964	\$ 213,536

FORESTRY AND STATE PARKS

Statement of Receipts and Disbursements

CAPITAL IMPROVEMENT FUND OF 1957

REVENUE:		TO DATE	
Appropriation, Public Laws of 1957			\$ 688,000
Sale of Lumber	\$	4,910	
Plans and Specification Forfeitures		200	
Department of Motor Vehicles		1,489	
Contribution Stanley County		5,634	
Total Receipts			\$ 700,233
Less: Disbursements			622,230
Unexpended Appropriation			\$ 78,003

PROJECTS:	APPROPRIATION	EXPENDITURES	UNEXPENDED
I. CLIFFS OF THE NEUSE	\$ 89,100	\$ 78,446	\$ 10,654
II. FORT MACON	8,547	4,773	3,774
III. HANGING ROCK	65,963	59,257	6,706
IV. JONES LAKE	19,792	19,779	13
V. MORROW MOUNTAIN	77,426	74,950	2,476
VI. MOUNT JEFFERSON AREA	17,298	17,137	161
VII. MOUNT MITCHELL	154,959	137,824	17,135
VIII. PETTIGREW	14,552	14,430	122
IX. REEDY CREEK	87,383	58,202	29,181
X. WILLIAM B. UMSTEAD	85,013	77,612	7,401
XI. FORESTRY (Lookout Towers)	72,000	72,000	
XII. FORESTRY (Nursery Buildings)	8,000	7,820	180
XIII. UNEMCUMBERED	200		200
Totals	\$ 700,233	\$ 622,230	\$ 78,003

DIVISION OF COMMERCIAL FISHERIES

Statement of Receipts and Disbursements

Permanent Improvement Fund of 1949

REVENUE:	TO DATE
Appropriation—Public Laws of 1949	\$ 50,000
Sale of Boats and Equipment	48,589
Total Revenue	\$ 98,589
Less: Total Disbursements (Boats and Equipment)	88,213
Unexpended Balance	\$ 10,376

STATE PARKS

Statement of Receipts and Disbursements

Permanent Improvement Fund of 1949

REVENUE:	TO DATE
Appropriation—Public Laws of 1949	\$ 1,074,144
Funds Transferred From Conservation and Development (1953)	26,500
Cooperation North Carolina Highway Commission	45,000
Total Revenue	\$ 1,145,644
Less: Disbursements	1,101,922
Unexpended Appropriation	\$ 43,722

PROJECTS:	APPROPRIATION	EXPENDITURES	UNEXPENDED
I. CLIFFS OF THE NEUSE	\$ 124,161	\$ 124,139	\$ 22
II. CRABTREE CREEK	265,354	262,421	2,933
III. FORT MACON	95,208	95,010	198
IV. HANGING ROCK	123,285	122,897	388
V. HIAWASSEE LAKE (Transferred to Permanent Improvement Fund of 1947)	10,000	10,000	
VI. JONES LAKE	38,016	38,008	8
VII. MORROW MOUNTAIN	80,779	80,617	162
VIII. MOUNT MITCHELL	205,891	205,612	279
IX. PETTIGREW	28,300	27,834	466
X. TOWN CREEK INDIAN MOUND	25,260	25,252	8
XI. CAPE HATTERAS	50,000	50,000	
XII. RENDEVOUS MOUNTAIN AREA	1,929	1,833	96
XIII. MOUNT JEFFERSON AREA	2,115	1,888	227
XIV. BEAR ISLAND AREA	3,000	3,000	
XV. REEDY CREEK	92,346	53,411	38,935
TOTALS	\$1,145,644	\$1,101,922	\$ 43,722

PERMANENT IMPROVEMENT FUNDS

STATE PARKS

Statement of Receipts and Disbursements

Permanent Improvement Fund of 1947

REVENUE:	TO DATE
Appropriation, Public Laws of 1947	\$ 500,000
Funds Transferred From:	
Tryon Palace	\$ 150,000
Conservation and Development (1955)	55,000
Permanent Improvement Fund (1949)	21,869
Tryon Palace Special Fund	12,449
Total Transferred Funds	239,318
Total Revenue	\$ 739,318
Less: Disbursements	734,771
Unexpended Appropriation	\$ 4,547

PROJECTS:	APPROPRIATION	EXPENDITURES	UNEXPENDED
I. CLIFFS OF THE NEUSE	\$ 57,000	\$ 56,888	\$ 112
II. CRABTREE CREEK	121,850	118,456	3,394
III. FORT MACON	30,000	29,994	6
IV. HANGING ROCK	88,000	87,489	511
V. JONES LAKE	25,540	25,500	40
VI. MORROW MOUNTAIN	93,000	92,607	393
VII. MOUNT MITCHELL	49,479	49,456	23
VIII. PETTIGREW	30,000	29,966	34
IX. SINGLETARY LAKE	17,000	16,967	33
X. TRYON PALACE LAND	227,449	227,448	1
Totals	\$ 739,318	\$ 734,771	\$ 4,547

TRYON PALACE COMMISSION

Statement of Receipts and Disbursements

Permanent Improvement Fund of 1949

REVENUE:	TO DATE
Proceeds First Latham Trust	\$ 118,385
Proceeds Second Latham Trust	619,444
Proceeds Residue Latham Estate Funds	2,220,519
Rentals	2,885
Total Revenue	\$2,961,233

LESS: DISBURSEMENTS

Architect's Fees and Furnishings	\$ 752,845
Documentary Research	14,257
Physical Research	182,718
New Construction	1,557,326
Land Acquisition	449,641
Total Disbursements	\$2,956,787
Unexpended Funds	\$ 4,446

CAPE HATTERAS SEASHORE COMMISSION

Statement of Receipts and Disbursements

Permanent Improvement Fund of 1951

REVENUE:	TO DATE
Funds Transferred From:	
Cape Hatteras Seashore Commission	\$ 768,233
1949 Permanent Improvement Fund	10,000
Conservation and Development (1953)	40,000
Total Revenue	\$ 818,233
Less: Total Disbursements	812,746
Unexpended Balance	\$ 5,487

DISBURSEMENTS

Land Acquisition	\$ 812,746
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WATERSHED PROJECTS

Biennium 1960-62

SPECIAL FUND

Statement of Receipts and Disbursements

REVENUE:	1960-61	1961-62
Federal Trust Fund	\$ 20,707	
Funds Transferred From Preceding Year	3,283	\$ 4,851
Total	\$ 23,990	\$ 4,851
Less: Disbursements	19,139	4,851
Balance Transferred to Succeeding Year	\$ 4,851	\$ -0-

SUMMARY OF DISBURSEMENTS—BY OBJECTS

Salaries and Wages	\$ 11,991	
Supplies and Materials	1,532	
Postage, Telephone and Telegraph	171	
Travel Expense	626	
Motor Vehicle Operation	989	
Contractual Service	3,451	
Equipment	379	
Refunded to Federal Government		2,986
Transferred to Conservation and Development		1,865
Totals	\$ 19,139	\$ 4,851

COMMUNITY PLANNING

Biennium 1960-62

SPECIAL FUND

Statement of Receipts and Disbursements

REVENUE:	1960-61	1961-62
Federal Planning Grant	\$ 14,643	\$ 118,912
State Cost	4,122	8,688
Communities Grants	52,109	61,791
Sale of Publications	32	1
Communities Branch Office Receipts	4,080	8,425
Funds Transferred From Preceding Year	25,549	5,096
Total	\$ 100,535	\$ 202,913
Less: Disbursements	95,439	143,835
Balance Transferred to Succeeding Year	\$ 5,096	\$ 59,078

SUMMARY OF DISBURSEMENTS—BY OBJECTS

Salaries and Wages	\$ 71,937	\$ 99,281
Supplies and Materials	948	384
Postage, Telephone and Telegraph	176	7
Travel Expense	5,034	7,036
Printing and Binding	4,225	7,371
Contractual Service	10,020	23,674
Branch Office Expenses	3,099	6,082
Totals	\$ 95,439	\$ 143,835

SOIL BANK PROGRAM

Biennium 1960-62

SPECIAL FUND

Statement of Receipts and Disbursements

REVENUE:	1960-61	1961-62
Appropriation—Federal Trust Fund	\$ 13,300	
Funds Transferred From Preceding Year	58,288	\$ 54,089
Total	\$ 71,588	\$ 54,089
Less: Total Disbursements	17,499	54,089
Balance Transferred to Succeeding Year	\$ 54,089	\$ -0-

SUMMARY OF DISBURSEMENTS—BY OBJECTS

Salaries and Wages	\$ 12,273	
Supplies and Materials	126	
Postage, Telephone and Telegraph	23	
Travel Expense	1,252	
Motor Vehicle Operation	3,017	\$ 162
General Expense	803	
Equipment	5	
Tree Seedlings		53,927
Total	\$ 17,499	\$ 54,089

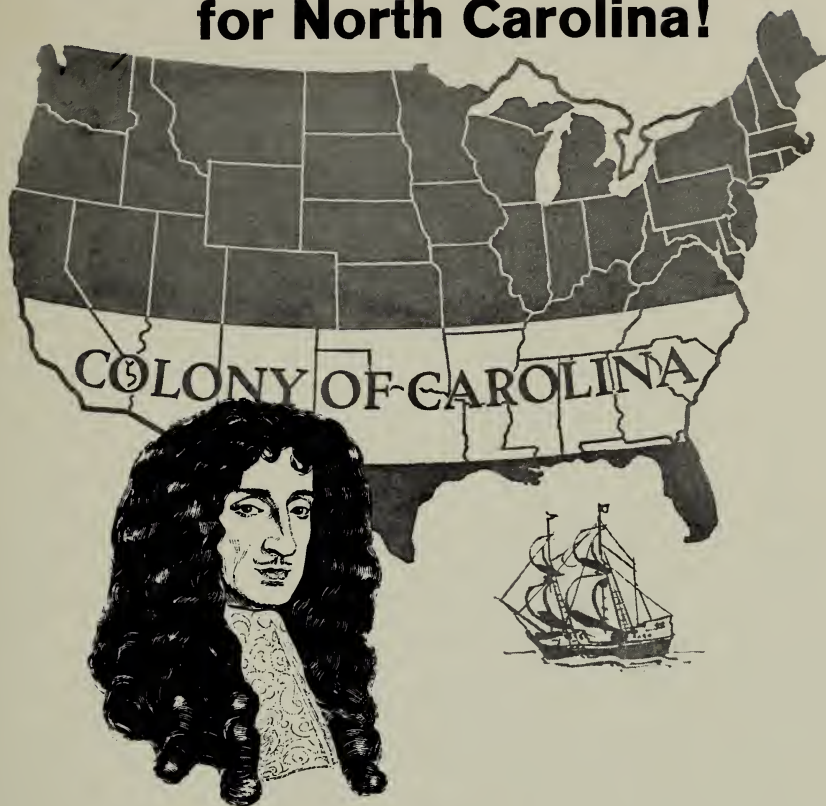
KERR RESERVOIR DEVELOPMENT COMMISSION**Biennium 1960-62****SPECIAL FUND****Statement of Receipts and Disbursements**

REVENUE:	1960-61	1961-62
Rentals from Property	\$ 3,215	\$ 7,958
Sale of Lumber	289	162
Funds Transferred From Preceding Year	1,271	1,973
Totals	\$ 4,775	\$ 10,093
Less: Total Disbursements	2,802	8,585
Balance Transferred to Succeeding Year	\$ 1,973	\$ 1,508

SUMMARY OF DISBURSEMENTS—BY OBJECTS

Permanent Buildings and Improvements	\$ 1,722	\$ 1,629
Equipment	638	4,697
Supplies	442	
Repairs and Alterations		380
Transferred to Kerr Reservoir		
Development Commission—Operating Fund		1,879
Totals	\$ 2,802	\$ 8,585

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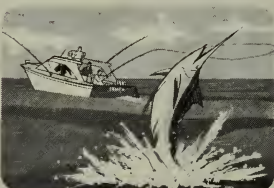
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