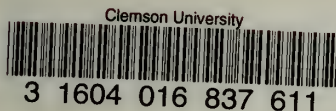


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draft general management plan  
environmental assessment



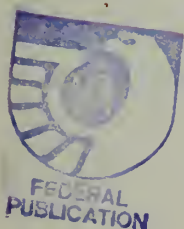
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# DELAWARE WATER GAP

NATIONAL RECREATION AREA / PENNSYLVANIA, NEW JERSEY



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DRAFT GENERAL MANAGEMENT PLAN

ENVIRONMENTAL ASSESSMENT

DELAWARE WATER GAP NATIONAL RECREATION AREA  
and  
MIDDLE DELAWARE NATIONAL SCENIC AND RECREATIONAL RIVER

Sussex and Warren Counties, New Jersey  
Monroe, Northampton, and Pike Counties, Pennsylvania

June 1986



## SUMMARY

Delaware Water Gap National Recreation Area, which includes the Middle Delaware National Scenic and Recreational River, is situated in an area of outstanding natural beauty that is within 100 miles of the 30 million people who live in the New York and Philadelphia metropolitan areas. Delaware Water Gap offers a variety of recreational opportunities--from hiking, swimming, boating, hunting, fishing, and sight-seeing to the enjoyment of a quiet rural environment.

The national recreation area and the scenic and recreational river were set aside by Congress to provide for public outdoor recreation and for preservation of scenic, scientific, and historic resources. This planning effort addresses these mandates, and it assumes that the Delaware will remain a free-flowing river and that the Tocks Island reservoir will not be built during the life of this plan. The Delaware River Basin Commission will reassess the need for the reservoir after the year 2000. If it is decided that the reservoir is needed, and if Congress acts to build the dam, the National Park Service will revise its management strategies accordingly.

This Draft General Management Plan/Environmental Assessment presents a preferred plan and two alternatives for the future management and use of the area over the next 10 years. The proposed plan would provide for diverse recreational opportunities; visitor facilities would be dispersed throughout the recreation area and connected by trails. Alternative 1 would continue existing conditions, with the Park Service responding to future needs and problems without undertaking major actions or changes in course. Alternative 2 would provide the widest possible range of visitor recreational opportunities and natural resource utilization through private sector development. (The proposed plan and alternatives are summarized in table 1.) Alternative 1 would meet the minimum legal requirements. If funding was not available to implement either the proposed plan or alternative 2, then alternative 1 would be implemented.

The major effects of the proposed plan and alternatives would be on visitor use. Under the proposed plan the visitor experience would be enhanced because more land would be available for public recreational opportunities, and development sites would be dispersed throughout the recreation area. Facilities would be expanded for both water-oriented and land-based activities. A variety of opportunities for staying overnight in the park would be available, including backcountry, canoe, family, and group campsites, plus some lodge accommodations. Under alternative 2 free public recreational opportunities would be limited; most activity sites would be operated by concessioners, who would be allowed to charge fees for visitors to use their facilities. Alternative 2 would provide the most opportunities for family camping and lodging accommodations.

Under the proposed plan the local economy would benefit from additional tourist expenditures, capital improvements, and leasing of 45 percent of the lands for agriculture and woodland management. Under alternative 2

private concession development within the recreation area would probably create a focal point for increased tourism, but visitors could be diverted from developments outside the recreation area. Development expenditures would be highest under this alternative, as would revenues from leasing approximately 60 percent of the lands for resource utilization (agriculture, mining, and woodland management). Existing visitation trends and tourist expenditures would continue under alternative 1.

The scenic diversity of the landscape would be maintained under the proposed plan and alternative 2, although more land would be devoted to resource utilization under the latter alternative. Also a greater level of development under alternative 2 could adversely affect overall scenic diversity. To allow for cost-effective agricultural operations, small fields would probably be merged into larger fields that would be more economical to farm. Under alternative 1 most of the recreation area (86 percent) would be allowed to return to natural conditions: Fields would revert to forests, historic farms would gradually be lost, and the contrasts between open fields, early successional vegetative communities, and mature forests would eventually disappear.

Effects on natural resources would be directly related to landscape management activities and the level of development. Development of visitor facilities would affect 900 acres under the proposed plan, 500 acres under alternative 1, and 1,900 acres under alternative 2. Under the proposed plan natural processes would be allowed on nearly half of the lands in the national recreation area, resulting in the eventual reestablishment of stable climax communities on these lands over the long term. The rest of the lands would be used for agriculture, woodland management, and development. Under alternative 1 most of the lands would be allowed to return to natural conditions. Under alternative 2 natural processes would be allowed on only 30 percent of the lands, and the remaining lands would be managed for other purposes. Landscape management activities would have corresponding effects on wildlife habitat diversity, with the most habitat types being provided under the proposed plan and alternative 2. Other effects on natural resources would be minor. Any development of mineral resources under alternative 2 would result in the irreversible and irretrievable loss of these resources.

Significant archeological and historic resources would be protected under all of the alternatives, including the proposed plan. However, fewer historic structures would be protected under alternative 1 or 2 than under the proposed plan because less money would be available for preservation programs. Major environmental consequences are summarized in table II.

Table 1: Summary of Proposed Plan and Alternatives

	<u>Proposed Plan</u>	<u>Alternative 1--Continuation of Existing Conditions</u>	<u>Alternative 2--Commercial Development</u>
Management Concept	Manage resources with traditional NPS methods to provide diverse recreational opportunities that are dispersed throughout the national recreation area.	Manage resources to meet statutory requirements and accommodate visitation with minimum expenditure of funds.	Provide widest possible range of visitor recreational opportunities and natural resource utilization through private sector development.
Scenic Landscape Management	Enhance scenic diversity between and within landscape types through appropriate management techniques.	Allow natural processes to continue in all areas except those now in agricultural production.	Rely on private sector to maintain landscape diversity through utilization of resources.
Natural Resources	Protect significant resources, including threatened and endangered species; encourage native species and habitats.	Protect threatened and endangered species in cooperation with the states.	Allow expanded private use of resources (e.g., forests, fields, minerals); protect outstanding resources.
Cultural Resources	Enhance and protect broad cultural patterns to meet visitor and management needs; manage historic structures according to their historic values and qualities.	Provide minimal protection of cultural resources; continue ongoing programs.	Encourage private use of historic structures for any purpose while ensuring protection of significant qualities.
Visitor Use			
- Interpretation	Expand programs to convey themes represented by the resources; encourage cooperating agencies to assist in interpretation.	Continue current limited programs with existing staffing and funding.	Expand interpretive programs by encouraging the private sector to provide interpretive and informational services.
- Recreational uses	Provide for the widest possible range of uses, consistent with visitor safety and resource protection; establish seasonal speed limits for river use; which would limit waterskiing.	Allow use commensurate with the personnel available to protect resources and ensure safety; eliminate high hazard uses, such as speedboating and waterskiing.	Allow the private sector to provide the widest diversity of use (e.g., pay beaches, boat launches, dude ranches, hunting camps, motorboating, waterskiing); establish river use zones for all activities.
- Management of visitor use	Set standards for social and environmental conditions; monitor conditions and disperse use if standards were exceeded.	Allow capacities of existing development to automatically limit visitation; close areas to further use if resource degradation became evident.	Set standards for social and environmental conditions; monitor conditions and relocate or terminate activity if standards were exceeded; allow development of commercial facilities to meet demand.
- Number of visits	Visits projected to be between 5.0 million and 6.9 million by 1996.	Visits projected to be between 3.3 million and 4.6 million by 1996.	Visits projected to be between 6.7 million and 9.2 million by 1996.
Administration			
- Operations	Provide adequate staffing and facilities at optimal intervals throughout the recreation area to provide for efficient operations.	Disperse personnel and facilities, consistent with present visitor uses.	Expand visitor protection staffing and facilities commensurate with greater visitor use; increase administrative staff to supervise contracts and leases with private sector.
- Maintenance	Provide adequate facilities so as to maximize work time and reduce travel time; relocate Pennsylvania north district satellite office to Zimmerman farm; develop New Jersey maintenance facility at Sandyston, with Weygadt as a satellite facility.	Continue existing maintenance facilities, except relocate north district maintenance office to the Zimmerman farm.	Reduce NPS maintenance responsibilities by requiring private sector to maintain their own facilities.
- Quarters	Provide employee quarters to minimize response times for visitor and resource protection problems; protect historic structures by using for employee housing.	Continue existing employee housing; protect historic structures by using for employee housing.	Provide additional housing to meet protection needs for expanded visitation, facilities, and activities.

	Proposed Plan	Alternative 1--Continuation of Existing Conditions	Alternative 2--Commercial Development
Development	Improve existing facilities and develop new ones to meet visitor use and resource protection needs.	Maintain and rehabilitate existing development facilities; close problem facility areas; develop limited new visitor facilities (e.g., canoe put-in at Buck or Fort John).	Maintain minimal NPS free use facilities; encourage private sector to provide other facilities.
- River access and beach development	Provide boat ramp or launch every 5-7 miles along river (staggered, on both sides); provide canoe put-ins every 1.5 miles on both sides of river (allow informal put-ins in central New Jersey); construct swim beach facilities at Eshback and Sandyston; improve Smithfield and Milford.	Maintain existing boat ramps or launches every 7-10 miles; develop new launch at Buck or Fort John; control other access; improve facilities at Smithfield and Milford.	Convert 5 NPS launches to ramps for pay; maintain two free launches; eliminate swimming at Smithfield; improve Milford (NPS); construct swim beach facilities at Sandyston (NPS); allow private development at five new sites (Cold Springs, Eshback, Milville, Smith Ferry, Copper Mine).
- Lake/land development	Provide wide range of lake-oriented facilities, including overnight accommodations (Long Pine Lake), protected swimming (Hidden Lake), ice skating (Fechter Pond); maintain largely undeveloped areas in Pennsylvania and New Jersey; manage large historic districts to preserve cultural landscape.	Maintain existing lake-oriented facilities at Hidden Lake, Loch Lomond, Watergate, Sussex Pond; provide for day use at Thunder Mountain and administrative use at Long Pine Lake.	Encourage private development of lake-oriented resort complex at Long Pine/Blue Mountain and a resort in Flatbrook Valley/Chado farm; allow economic factors to determine degree and extent of development.
- Picnic areas	Develop additional picnic areas to diversify recreational opportunities and to meet demand.	Maintain and improve existing areas.	Encourage private sector to provide picnic areas in conjunction with other developments.
- Camping areas	Develop concessioner-operated family camping (Long Pine Lake and Dingmans); expand group campsites (Hidden Lake); provide campsites for canoeists (Valley View) and backcountry users (Egypt Mills and Crater Lake); maintain existing canoe campsites and expand camping area at Sandyston.	Maintain existing group and canoe campsites and upgrade as necessary to protect resources (e.g., provide comfort stations).	Encourage private development of overnight lodging, commercial family and group campgrounds; provide primitive backcountry and canoe campsites.
- Playfields	Improve existing areas and develop new ones (total of 14 areas).	Maintain existing areas.	Encourage private sector to develop additional playfields.
- Trails	Develop countryside trails on Pennsylvania side of river, with connecting trails and horse trails, and riverside trails on both sides of the river.	Allow other organizations to develop trails.	Encourage private development of horse, snowmobile, and four-wheel-drive trails.
- Tour roads and overlooks	Identify tour roads on mini-folder; develop new overlooks for valley and river.	None.	Allow private sector to develop and operate two tour bus loops, with overlooks and interpretive programs.
- Other roads	Maintain roads needed for access to facilities and for recreational use; obliterate others.	Close as many roads as possible to reduce maintenance requirements.	Leave most roads open; maintain with local, state, private sector participation.
- Food service	Develop concessioner operations at areas with major activities (e.g., beaches, Long Pine, and Millbrook).	Consider new facilities provided by others.	Encourage six new commercial developments (e.g., beaches, Walpack, and Peters Valley).
- Information	Provide new visitor contact facilities that unify visitor perception of an integrated national park system area (at Weygadt, Sand Hill, Lapawansa); provide small-scale stations at Millbrook, Dingmans Ferry, and NJ 206.	Continue visitor information at Kittatinny.	Same as proposal, except emphasize commercial opportunities.

Table II: Summary of Major Environmental Consequences

	<u>Proposed Plan</u>	<u>Alternative 1--Continuation of Existing Conditions</u>	<u>Alternative 2--Commercial Development</u>
Local Economy	Tourism and expenditures would increase moderately. NPS construction projects would add money to the local economy through jobs and purchase of materials.	Present tourist trends and expenditures would continue. No major development would be undertaken.	Increased tourist opportunities and economic benefits would be created by private concession developments within the recreation area. Visitors could be diverted from outside developments. Tourist expenditures and development costs would be the highest of any alternative.
Visitor Experience	Visitor facilities would be dispersed throughout the recreation area, thus reducing crowding and congestion as well as the potential for conflicts between visitor groups. Visitors would have more opportunities to learn about and appreciate the area's natural and cultural resources.	Visitor facilities would continue to be inadequate. Overcrowding of existing facilities would result in more conflicts between user groups. There would be fewer opportunities to learn about the area's natural and cultural resources.	Private concession developments would tend to appeal to one type of visitor group, rather than a spectrum of visitors. The lack of a comprehensive interpretive program would diminish the experience for some visitors.
Public Recreational Opportunities	More public land would be available for free recreational activities. Facilities would be expanded for water-oriented activities (swimming, fishing) and land-based activities (hiking, picnicking). Hunting would be allowed on 85% to 92% of the lands. More visitors than at present could stay overnight in the recreation area.	Limited development would restrict the diversity of activities. Up to 93% of the area would be open to hunting. No opportunities would be provided for back-country camping, and there would be fewer canoe and family campsites compared to the proposal.	Free public recreational opportunities would be limited. Visitors would have to pay to use private concession facilities. Hunting would be allowed on 60% to 90% of the lands. This alternative would provide the widest range of overnight use.
Scenic Landscape	The area's scenic diversity would be maintained, with its mix of natural and cultural landscapes.	Natural processes would be allowed on the majority of lands, resulting in the loss of scenic diversity over the long term. Open fields would revert to forests, historic farms would deteriorate, and contrasts between fields, early successional communities, and mature forests would be lost.	The present scenic diversity in terms of open fields and succeeding vegetational communities would be maintained, but mining and a greater level of development could change the present rural character. Small fields would probably be merged into larger ones to allow for cost-effective agriculture.
Natural Resources	Development would have a net adverse effect on 900 acres. Natural processes would be allowed on 47% of the area. Landscape management activities would enhance wildlife habitat.	Development would have a net adverse effect on 500 acres. Natural processes would be allowed on 85% of the area. Habitat diversity would be limited over the long term.	Development would have a net adverse effect on 1,900 acres. Natural processes would be allowed on 30% of the area. Greater development would reduce wildlife habitat, but present diversity of types would continue.
Cultural Resources	Archeological resources would be protected through surveys and increased patrols. Historic resources would be protected through NPS and lessee preservation treatment, occupancy, and interpretation/use. Increased visitation and adaptive use of structures could result in some loss of historic fabric.	Protection levels for archeological resources would remain the same as now. Fewer historic structures would be protected than under the proposal because of less funding. Some historic fabric could be lost because of adaptive use.	More extensive archeological excavation would be undertaken before development, resulting in the loss of some sites. There would be minimal protection of historic structures because of less money for preservation programs. Some historic features could be lost through adaptive use.



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## INTRODUCTION

This section explains the background of the current planning effort, states the purpose of the plan in terms of its objectives, and discusses the issues addressed by the plan. Together this information provides the context for the proposed general management plan for Delaware Water Gap National Recreation Area. The proposed plan is the result of several years of effort, and numerous problems have been identified, discussed, and resolved during that time. As a result, the scope of the current plan has been reduced, compared to previous plans.

## PLANNING BACKGROUND

Delaware Water Gap National Recreation Area and the Middle Delaware National Scenic and Recreational River have been set aside by Congress for public use and the protection of natural, cultural, and recreational values. The free-flowing Delaware River cuts through a narrow valley, and the adjacent lands contain streams and waterfalls, geologic features, a variety of plants and wildlife, and cultural resources. Located near large concentrations of people in the New York City and Philadelphia metropolitan areas, and easily accessible by private vehicle, the area offers a variety of recreational opportunities. These include hiking, swimming, fishing, hunting, boating, pleasure driving, and sight-seeing; learning about natural and cultural history; and enjoying the solitude of a rural environment and a change of pace.

The northern boundary of the national recreation area is 3.5 miles south of Port Jervis, New York (the point where the states of Pennsylvania, New Jersey, and New York meet), and the southern boundary is about 35 miles downriver, 1.5 miles beyond the geologically significant water gap. Today the federal government owns some 52,700 acres (21,322 ha) of the nearly 70,000 acres (28,200 ha) included in the national recreation area boundary.

The purpose of the general management plan for Delaware Water Gap National Recreation Area and the Middle Delaware Scenic and Recreational River will be to guide the overall management and use of the area's resources over the next 10 years and to ensure the perpetuation of the area's scenic, natural, and cultural resources for present and future public enjoyment. The approved plan will also provide the foundation for subsequent detailed implementation plans, programs, and operations.

## LEGISLATIVE HISTORY

Delaware Water Gap National Recreation Area was established by Public Law (PL) 89-158, enacted September 1, 1965, to provide "for public outdoor recreation use and enjoyment of the proposed Tocks Island Reservoir and lands adjacent thereto by the people of the United States and for preservation of the scenic, scientific, and historic features contributing to public enjoyment of such lands and waters" (see appendix A). This act assumed that the U.S. Army Corps of Engineers would build and manage the reservoir and that the surrounding lands would be administered by the National Park Service as a recreation area, focusing on an array of recreational activities made possible by the lake. However, the nationwide environmental conservation movement of the 1970s, which was concerned with the preservation of natural ecosystems, raised questions about the environmental and economic feasibility of the Tocks Island lake project (TILP). As a result, Congress has not yet appropriated funds to begin construction of the reservoir.

PL 95-625, the National Parks and Recreation Act of 1978, amended PL 89-158 by transferring all federal lands, as well as land acquisition authority within the authorized boundary of the national recreation area, from the Corps of Engineers to the National Park Service (sec. 315). Also, this act amended the Wild and Scenic Rivers Act, PL 90-542, by designating the Delaware River within the recreation area as a component of the national wild and scenic rivers system (sec. 705). Although construction of the Tocks Island lake project has never been deauthorized by Congress, the enactment of the National Parks and Recreation Act of 1978 means that Congress would have to specifically direct the construction of the reservoir. As of November 30, 1983, the Delaware River Basin Commission has resolved that "TILP is placed in reserve for development if needed for water supply after the year 2000."

Although the intent of PL 89-158 was to establish a national recreation area that would complement the Tocks Island lake project, the provisions of the act that relate to the administration of the area still apply, even though the construction of the reservoir is uncertain. Section 5 of the legislation calls for a management plan that will specifically provide for (in priority order):

- (1) public outdoor recreation benefits;
- (2) preservation of scenic, scientific, and historic features contributing to public enjoyment;
- (3) such utilization of natural resources as in the judgment of the Secretary of the Interior is consistent with, and does not significantly impair, public recreation and protection of scenic, scientific, and historic features contributing to public enjoyment.

Administration of the area is further affected by the provisions of the Wild and Scenic Rivers Act, which stipulate that as a scenic and recreational river, the Middle Delaware River

shall be administered in such manner as to protect and enhance the values which caused it to be included in [the wild and scenic rivers] system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protect its esthetic, scenic, historic, archeologic, and scientific features. Management plans . . . may establish varying degrees of intensity for [the area's] protection and development, based on the special attributes of the area.

## PLANNING HISTORY

Immediately after the authorization of Delaware Water Gap National Recreation Area in 1965, the National Park Service prepared a master plan (now called a general management plan) for the preservation and use of the area, assuming that the reservoir would be built. This plan was

**DELAWARE WATER GAP NATIONAL RECREATION AREA  
MIDDLE DELAWARE NATIONAL AND SCENIC RECREATION RIVER**



revised repeatedly to reflect the changing circumstances, until it was decided that a new plan was needed to address the issues in a comprehensive fashion and assuming that a reservoir would not be built.

An Environmental Assessment was prepared in 1975 and released in 1976, and a Draft General Management Plan and a Draft Environmental Impact Statement were prepared in 1978. However, the plan and statement were not released to the public until 1980, along with an updating addendum. The documents were given a three-month public review, which was followed by informal consultations through March 1981 with concerned groups and agencies. At that point work on the new plan was delayed so that several issues that affected the future of the recreation area could be resolved separately. These included the issue of high volumes of commercial traffic on US 209 within the national recreation area and the issue of managing remaining nonfederal lands within the boundary. To address the US 209 issue, separate draft and final environmental impact statements were prepared, and a commission was created to detail possible solutions. To address nonfederally owned areas, a Land Protection Plan was prepared to study alternative ways of protecting such lands.

Once these issues had been addressed, work on the general management plan was restarted in June 1984. The scope of the planning effort, however, has changed significantly because the US 209 issue and the question of land protection have been addressed separately. Consequently, it was decided that a revised draft plan should be prepared, along with an environmental assessment to document the consideration of other alternatives and environmental consequences.

### SCOPING PROCESS

Consultations conducted during earlier stages of this general management planning process have helped determine what issues this Draft General Management Plan/Environmental Assessment should address. Many of these contacts are described in previous documents. Public meetings on the previous Draft Environmental Statement and Draft General Management Plan were held in November 1980, and written comments were accepted until January 15, 1981. A total of 165 comments were received (including oral comments made at the public meetings). Comments fell into seven broad categories (land acquisition and leasing, natural resource management, cultural resource management, visitor use and interpretation, development, Appalachian Trail, and regional effects), in addition to general comments. These comments are summarized in appendix B, and they have been considered by the planning team in the preparation of this document.

One issue that has become of particular concern to the public is recreational use of the national recreation area, in particular provisions for hunting, trapping, and fishing, and for uses by special interest groups. Access is an issue as it relates to these recreational activities.

Consultations have been held on a continuing basis with the local county governments (Sussex, Warren, Monroe, and Pike counties, and with Northampton County as needed), and with state and federal agencies (Federal Highway Administration, U.S. Fish and Wildlife Service, Environmental Protection Agency, Soil Conservation Service, Delaware River Basin Commission, Pennsylvania Department of Environmental Resources, both state fish and game agencies, and both state historic preservation offices). Topics of discussion have included transportation issues, particularly related to US 209 and local traffic patterns; fishing and hunting, stocking programs, and habitat manipulation; possible impacts on local communities and the effects of local development on the national recreation area; the status of prime and unique farmlands; and the level of planning for historic sites and structures. Several meetings have also been held with canoe liverymen and canoeing/boating organizations to discuss commercial use of the river, the river carrying capacity, numbers of canoeists and boaters, and possible limits on river use. All of these contacts are listed in the "Consultation and Coordination" section of this document.

The Tocks Island lake project continues to generate much public concern, and many comments on the 1978 draft plan and statement mentioned the project. This issue, however, is beyond the scope of the current planning effort. This plan assumes that the Delaware River will continue to be free-flowing, and the National Park Service is committed to managing a free-flowing scenic and recreational river. If the Delaware River Basin Commission determines a need for the project and if Congress appropriates funds for construction, then the National Park Service will revise its management strategies appropriately.

## PURPOSE OF AND NEED FOR THE PLAN

### MANAGEMENT OBJECTIVES

The purpose of the general management plan is to outline strategies for achieving management objectives that have been established for the national recreation area. These objectives are based on legislative mandates and management policies of the National Park Service, as well as the existing features of the recreation area. They describe the conditions that should be achieved in the national recreation area over the long term, although not necessarily within the life of the approved plan. The objectives will provide a standard by which to measure progress on the individual actions proposed by the plan.

#### Cooperation

Participate with other federal, state, and local agencies, private organizations and interests, and members of the public to ensure (1) that land uses in the vicinity of the national recreation area are compatible with long-term perpetuation of national recreation area values, (2) that recreational opportunities, visitor services, and public facilities in the area and its vicinity are complementary and that they efficiently serve the needs of visitors and regional residents, and (3) that structures and sites of cultural significance within the region are preserved and interpreted.

#### Interpretation

Foster a public understanding and appreciation of the natural and cultural processes that have shaped and are continuing to shape the Delaware River valley.

Make the public aware of available recreational opportunities, interpretive programs, visitor services, and necessary safety considerations.

#### Visitor Use

Provide the widest possible range of recreational opportunities that are dispersed throughout the area and in a way that prevents resource degradation or loss as a result of use.

Ensure that recreational opportunities are available to all people, without endangering the health or safety of any, with a minimum of conflicts between user groups.

#### Resource Management

Protect and perpetuate natural resources, including endangered or threatened species and their habitats; ensure the survival of native plant and animal species, and compatible game species, and the continued contribution of these species to the recreational enjoyment of the area.

Protect and preserve the broad cultural patterns of human occupation and scenic diversity of the area, as they reflect man's interaction with the natural resources of the Delaware Valley; manage cultural resources and patterns in a way that is compatible with recreation area values, preserves their significant qualities, provides a living exhibit and interpretive demonstration, and maintains the integrity of the resources and their settings.

#### Research

Secure adequate information on natural resources, cultural resources, visitor use, and recreational values to allow for the best possible management of the recreation area.

#### Land Protection

Assemble and protect a land base that allows for efficient management operations and that ensures the long-term perpetuation of public access to the river and other recreational sites and opportunities (e.g., hunting and fishing); the perpetuation of the integrity of all scenic, scientific, and historic resources; and the perpetuation of water quality.

The attainment of these objectives will require that the issues described in the next section be addressed.

### PLANNING ISSUES AND MANAGEMENT CONCERNS

Several issues pertain directly to the future management of the national recreation area, the extent of resource preservation, and the quality of the visitor experience. The issues identified below describe problems that should be resolved to carry out the legislative mandate to provide for public use and protect the resources.

#### Visitor Use

The number and diversity of visitors to the national recreation area has led to conflicts among user groups. Conflicts occur between various river users during the peak season when more than 10,000 people want to simultaneously use a river segment that is only about 35 miles long and from 200 to 400 feet wide. In congested areas, such as south of Smithfield, fishermen, canoeists, tubers, and swimmers get in the way of speedboaters and waterskiers. Also high-speed boaters can splash and swamp boaters in nonmotorized craft. On land conflicts occur when a variety of visitor groups compete for the use of a relatively small area.

The national recreation area is perhaps the largest and most important natural area for hunters, hikers, and sightseers in northern New Jersey or eastern Pennsylvania. However, many recreationists feel threatened by hunting and the possibility of accidents.

Numerous private organizations request permits for special activities within the national recreation area, and activities such as hang-gliding, model airplane flying, and river raft races have been allowed. Also watching these events has become a recreational activity in itself. However, some special uses such as a club meeting at a boat launch or campground can have the effect of denying access to public lands for other visitors. Methods of accommodating a variety of users while minimizing conflicts among user groups must be explored and implemented.

Many regional residents and area visitors alike are aware of the opportunities available at Delaware Water Gap, and the natural and cultural resources offer a rich interpretive potential. Information about the area and the significance of its resources is not well conveyed to nonlocal visitors and should be improved to enhance their enjoyment of the area.

### Scenic Landscape Management

The national recreation area contains a variety of scenic, natural, and cultural resources. Natural forces work to remove evidence of man's use of the land and to return the area to a uniform natural state. It is necessary to determine what level of scenic diversity is desired and to decide how to manage certain features such as vegetation and structures to reach a balance between the natural and cultural landscapes.

### Natural Resource Protection

Undirected use of the national recreation area results in the degradation of natural resources. Examples of such use are people camping in undesignated areas, hiking where there are no trails, or parking automobiles on vegetation along roads. Criteria should be defined and guidelines established so that protective measures can be taken to control any utilization of natural resources.

### Cultural Resource Preservation

Approximately 75 historic sites within the national recreation area have been identified as significant and are listed on the National Register of Historic Places or are considered eligible for listing. Many of the structures are in an advanced state of deterioration, and because there has been inadequate funding for preservation or stabilization, they present safety hazards. The number, location, and physical condition of these structures limit possible use. There is a high level of public interest in these structures, as well as the physical evidence of the history of the valley. The plan must balance these factors and determine priorities for the treatment of these structures, for example, which structures should be restored or preserved and which ones should be allowed to deteriorate in accordance with historic preservation laws and regulations.

The national recreation area is also rich in archeological resources, and these sites must be protected from destruction and unauthorized collecting. If any facilities for visitor use are needed in areas where archeological resources exist, procedures must be followed to ensure the protection of the resources.

### Development

Visitor and management needs are not fully met by existing facilities because some are not cost-effective to maintain; some do not meet health, safety, or other NPS standards; some are in poor locations; and some are too small to meet demands.

Effective management of visitor use, natural resources, and cultural resources is hampered by the fact that numerous roads and highways through the recreation area make it impossible to control external vehicular access.



# THE PROPOSED PLAN AND ALTERNATIVES ADDRESSING THE ISSUES AND MANAGEMENT OBJECTIVES

This section describes the proposed general management plan for Delaware Water Gap National Recreation Area and two alternative plans. Although the proposed plan and the alternatives differ in their approach to providing for recreational uses and general development, they do have certain elements in common. Apart from these elements, the proposed plan would provide for diverse recreational opportunities dispersed throughout the national recreation area. Alternative 1 would continue existing conditions, with the National Park Service responding to future needs and problems without undertaking major actions or changes in course. Alternative 2 would provide the widest possible range of visitor recreational opportunities and natural resource utilization through private sector development.

Although the national recreation area and the scenic and recreational river have separate legislative origins, the land and water areas are considered as an integrated whole for the purposes of this document. Therefore, whenever the term national recreation area is used, the scenic and recreational river is also meant, unless otherwise noted.

A portion of the Appalachian National Scenic Trail is located within the recreation area. The trail is mentioned in sections of the general management plan wherever its existing and future use and management must be coordinated with the general planning effort.

## COMMON ELEMENTS OF THE PROPOSED PLAN AND ALTERNATIVES

### LAND PROTECTION STRATEGY

Congress recognized that Delaware Water Gap National Recreation Area should "include examples of superlative scenery--the renowned Delaware Water Gap, 10 miles of the Kittatinny Mountain Ridge, [Pennsylvania] plateau country back of the mountains, 20 or more small natural lakes and ponds, and several scenic gorges marked particularly by their hemlock forests and beautiful waterfalls." To protect all of these features, Congress originally authorized approximately 72,000 acres to be included in the recreation area. Through adjustments in the boundary since then, the area now contains 69,629 acres (28,172 ha), of which nearly 52,675 acres (21,325 ha) are federally owned. In accordance with the legislation, these lands are to be used for recreation, for scenic, scientific, and historic resource preservation, and for resource utilization where the primary values of the national recreation area would not be impaired.

Several methods have been considered to protect land and resources within the area, including agreements with other public or quasi-public owners; zoning of privately owned lands through township ordinances; the acquisition of a partial interest in a property (easement), or fee ownership.

The National Park Service has explored the use of these alternative methods on a tract-by-tract basis in the Land Protection Plan. That plan establishes a rationale for land protection actions where exchanges, donations of interests in lands, and agreements are emphasized. Zoning will be relied upon unless it no longer provides protection. Fee acquisition will be pursued only in hardship cases or when it is the sole method to adequately ensure resource protection and to guarantee essential public access to and use of federal lands within the national recreation area. Emergency acquisition will take place only when resource destruction is imminent and depending on the availability of funds.

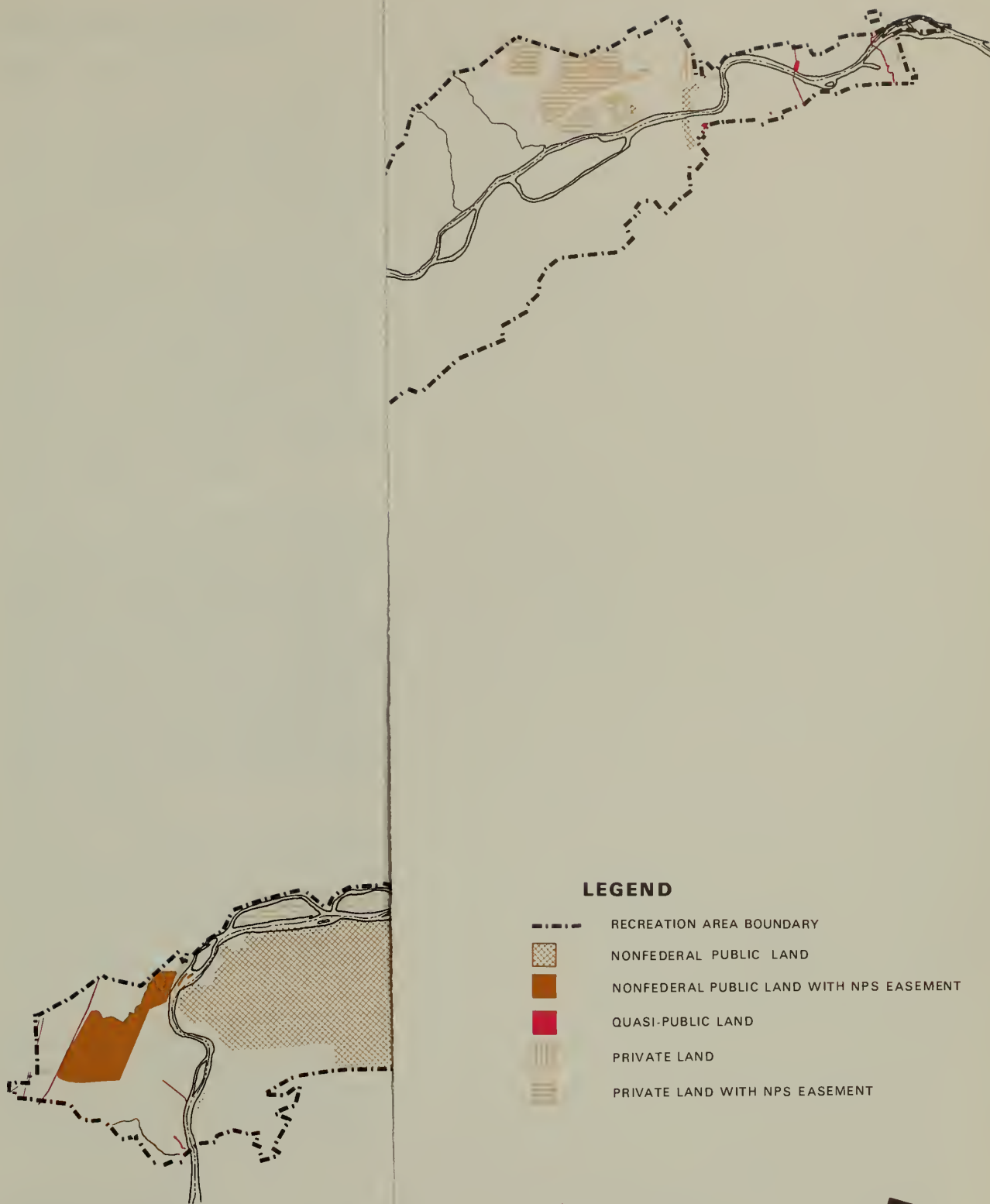
The Land Protection Plan is intended to function as an analytical guide for park managers to use in assessing and recommending to what extent any particular resource must be used or protected. This General Management Plan is also intended to serve as a guide for park managers, but it goes beyond the Land Protection Plan to provide for the implementation of that plan's recommendations as the "preferred" treatment for specific parcels of land or areas of potential development.

The final Land Protection Plan will be implemented to protect resources and to provide for visitor use under the proposed plan and the alternatives (see Land Protection Proposal map). However, the proposed plan recommends one change: fee acquisition of the historically significant Rosenkrans ferryhouse. The Rosenkrans tract is essential for protecting the integrity of the national scenic river, as well as natural,

cultural, and scenic resources. The acquisition of this tract will also ensure that the natural river setting at Walpack Bend remains undeveloped. The recommendations of the Land Protection Plan are summarized in table 1.

Table 1: Land Protection Plan Summary

Total Authorized Acreage:	69,629
Current Ownership (other than water):	
Federal (NPS jurisdiction)	52,674.79
State or local	7,485.90
Private	<u>5,170.26</u>
	65,330.95
Methods of Protecting State, Local, or Private Lands:	
Exclusion from boundary	576.31
NPS fee acquisition	1,814.47
Less-than-fee acquisition	2,927.83
Zoning	40.32
Cooperative agreement	655.07
Regulation	0
Adequately protected	<u>6,642.16</u>
Total (as of March 1, 1985)	12,656.16



# LEGEND

- RECREATION AREA BOUNDARY
- ▨ NONFEDERAL PUBLIC LAND
- NONFEDERAL PUBLIC LAND WITH NPS EASEMENT
- QUASI-PUBLIC LAND
- ▤ PRIVATE LAND
- ▥ PRIVATE LAND WITH NPS EASEMENT

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



## LAND PROTECTION PROPOSAL

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



# LEGEND

- RECREATION AREA BOUNDARY
- NONFEDERAL PUBLIC LAND
- NONFEDERAL PUBLIC LAND WITH NPS EASEMENT
- QUASI-PUBLIC LAND
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## LAND PROTECTION PROPOSAL

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

## COMPLIANCE ACTIONS

### Natural Resources

The National Park Service is committed to protecting and preserving all natural resources under its jurisdiction. In accordance with the National Environmental Policy Act, the Park Service will continue to survey and evaluate all resources on lands under its jurisdiction, and it will analyze effects on prime or unique agricultural lands.

NPS compliance with standards for the quality of air, water, and land resources will be documented, as required by Executive Order (EO) 12088 ("Prevention, Control, and Abatement of Environmental Pollution at Federal Facilities"). All actions potentially affecting water quality will comply with the Federal Water Pollution Control Act, as amended. The National Park Service will consult with the Delaware River Basin Commission and other appropriate federal, state, and local agencies to ensure that its actions enhance water quality and prevent, control, and abate water pollution.

Extensive areas of the national recreation area are within the floodplain of the Delaware River. Actions proposed in the 100-year and 500-year floodplains consider the need to protect lives and property along with the need to restore and preserve natural and beneficial floodplain values. In compliance with EO 11988 ("Floodplain Management"), the National Park Service will continue a comprehensive approach to floodplain management. Publication of this environmental document demonstrates compliance with procedures in the decision-making process required by the Water Resources Council guidelines for implementing EO 11988. These include delineation of the 100-year floodplain, determination of proposed actions that might occur in the floodplain, and publication of the intent to take those actions.

Swamps, marshes, wet meadows, and other wetlands within the national recreation area have been identified on maps prepared by the U.S. Fish and Wildlife Service as part of the planning process. The long-term and short-term adverse impacts associated with the destruction or modification of wetlands will be avoided to the extent possible, in compliance with EO 11990 ("Wetland Management").

The U.S. Fish and Wildlife Service concurs with the determination that there are no federally listed endangered or threatened species, or critical habitats in the national recreation area. The valley, however, is within the range of some listed species, and the National Park Service will continue to conserve the ecosystems that support them.

### Cultural Resources

As a federal agency, the National Park Service is required to preserve and protect cultural resources under its jurisdiction by the 1906 Antiquities Act, the National Historic Preservation Act of 1966, as

amended, the Archeological Resources Protection Act, other legislation, and NPS policies and guidelines. The Park Service has surveyed and identified significant historic resources, and some significant archeological sites have been identified. The National Park Service will recognize potential impacts on them, and will plan for and design mitigations for those impacts.

Many of the historic and archeologic resources in Delaware Water Gap National Recreation Area have been placed on or have been determined eligible for the National Register of Historic Places. These resources are therefore afforded protection by section 106 of the National Historic Preservation Act, as amended, and by its implementing regulations promulgated by the Advisory Council on Historic Preservation (36 CFR 800). A programmatic memorandum of agreement between the National Park Service, the Advisory Council, and the National Conference of State Historic Preservation Officers has eliminated the requirement for the council's and state officers' review of undertakings for implementing basic planning documents, such as this one, if the proposals have been developed in consultation with the council and the appropriate state historic preservation officer. To date, the council and the New Jersey and Pennsylvania state historic preservation officers have participated in the planning for Delaware Water Gap through consultations and on-site inspections.

Consultation will continue throughout the planning process to ensure that the plan is implemented in accordance with applicable NPS policies and guidelines. Completion of this Draft General Management Plan/Environmental Assessment and concurrence with actions included in the document by the council and state officers will satisfy the requirements of section 106. Assessment-of-effect forms will be required for implementing projects that are included in this document to ensure that requirements of NPS regulations and guidelines are followed.

## OTHER CONSIDERATIONS

### Tocks Island Lake Project

The Delaware River Basin Commission will reassess the need for the Tocks Island lake project after the year 2000, based on the water supply in the basin. Therefore, the National Park Service must acknowledge the possibility that the reservoir could be built. Facilities that would be affected if the Tocks Island reservoir was constructed are listed in appendix C. These facilities are essential for water-related recreation, and their costs can be fully amortized before construction of a dam, if one is built.

Any development within the riverbed or watercourse or on the shoreline of the Delaware River will require a permit from the U.S. Army Corps of Engineers, which has jurisdiction over navigable waters of the United States.

## Concession Operations

Under each alternative several concession activities are proposed. In all cases concessions will be administered according to applicable laws, regulations, and NPS policies.

The purpose of concessions in park areas is not to compete with commercial activities outside the area but to meet the immediate needs of visitors and to increase the diversity of services available. Concessions are private enterprises and are guaranteed by law to make a profit. However, because concessioners have exclusive rights to do business in the park area, the prices they can charge for accommodations, goods, and services are controlled by the superintendent and are based on the cost of comparable products sold outside the recreation area.

Each alternative presents a different level of development and intensity of visitor use and, therefore, varying types and numbers of commercial activities. In each case the concessions described in the alternatives are considered necessary to meet projected visitor demand and are appropriate for providing the type of recreational experience desired. As part of the final general management plan, a concessions management plan for the approved concession activities will be prepared. Before contracts are issued, an economic feasibility study will be conducted for individual concession operations.

## Roads

The proposed plan and alternatives consider the entire road network as an integrated system, regardless of ownership. The access and circulation system was analyzed by determining the purpose and function of each road and how that road would relate to the park purpose and visitor needs under each alternative. The National Park Service does not intend to acquire every road within the authorized boundary; however, as roads come into NPS ownership, they will be managed as recommended by the proposed plan or the selected alternative.

## Performing Arts Center

The development of a center for the performing arts in the Pocono Mountains has been discussed for several decades. Recently the commonwealth of Pennsylvania authorized \$6 million for the construction of such a center in the vicinity of Delaware Water Gap. However, for these funds to be expended the center must be constructed on land owned by Pennsylvania. Activities oriented to the performing arts and their appreciation are appropriate within the national recreation area. A center for performing arts could be developed at a number of locations. The most important factors in site selection are (1) convenient access for patrons in the primary service area, and (2) continued protection of the outstanding natural or cultural resources of the recreation area, or any long-standing recreational activities.

The National Park Service has limited funds to carry out its primary mission at Delaware Water Gap, and consequently it cannot commit funds to the construction, maintenance, or operation of the center. The Park Service will, however, continue to work with the board of directors of the Pocono Mountains Center for the Arts to find a setting that will meet the goals of both the board and the National Park Service.

## PROPOSED PLAN

The proposed plan for Delaware Water Gap National Recreation Area has seven main elements: management zoning, scenic landscape management, natural and cultural resource management, visitor use, administration, and general development. An implementation schedule and cost estimate are also included.

### MANAGEMENT ZONING

Management zoning prescribes appropriate uses for all lands within the boundary of the national recreation area. The zones are based on the inherent nature of resources, their suitability for use or development, and the legislative mandate and objectives established for the area.

Recreation area lands would be placed in one of four management zones--natural, historic, development, and special use. Each of these zones could be divided into subzones to reflect various management strategies. Acreages for each zone, and the percentage of the recreation area that zone represents, are shown in table 2.

Table 2: Management Zones  
Proposed Plan

<u>Zone/Subzone</u>	<u>Acres/Hectares</u>	<u>Percentage of National Recreation Area</u>
Natural Zone		
Outstanding natural feature	16,838 / 6,813	24.2
Landscape management	40,635 / 15,441	58.3
Historic Zone	1,053 / 426	1.5
Development Zone	898 / 363	1.3
Special Use Zone		
Nonfederal public land	6,411 / 2,594	9.2
Nonfederal public land with an NPS easement	16 / 6	0.1
Quasi-public land	726 / 294	1.0
Private land	781 / 316	1.1
Private land with an NPS easement	2,271 / 919	3.3
	<u>69,629 / 28,172</u>	<u>100.0</u>

## Natural Zone

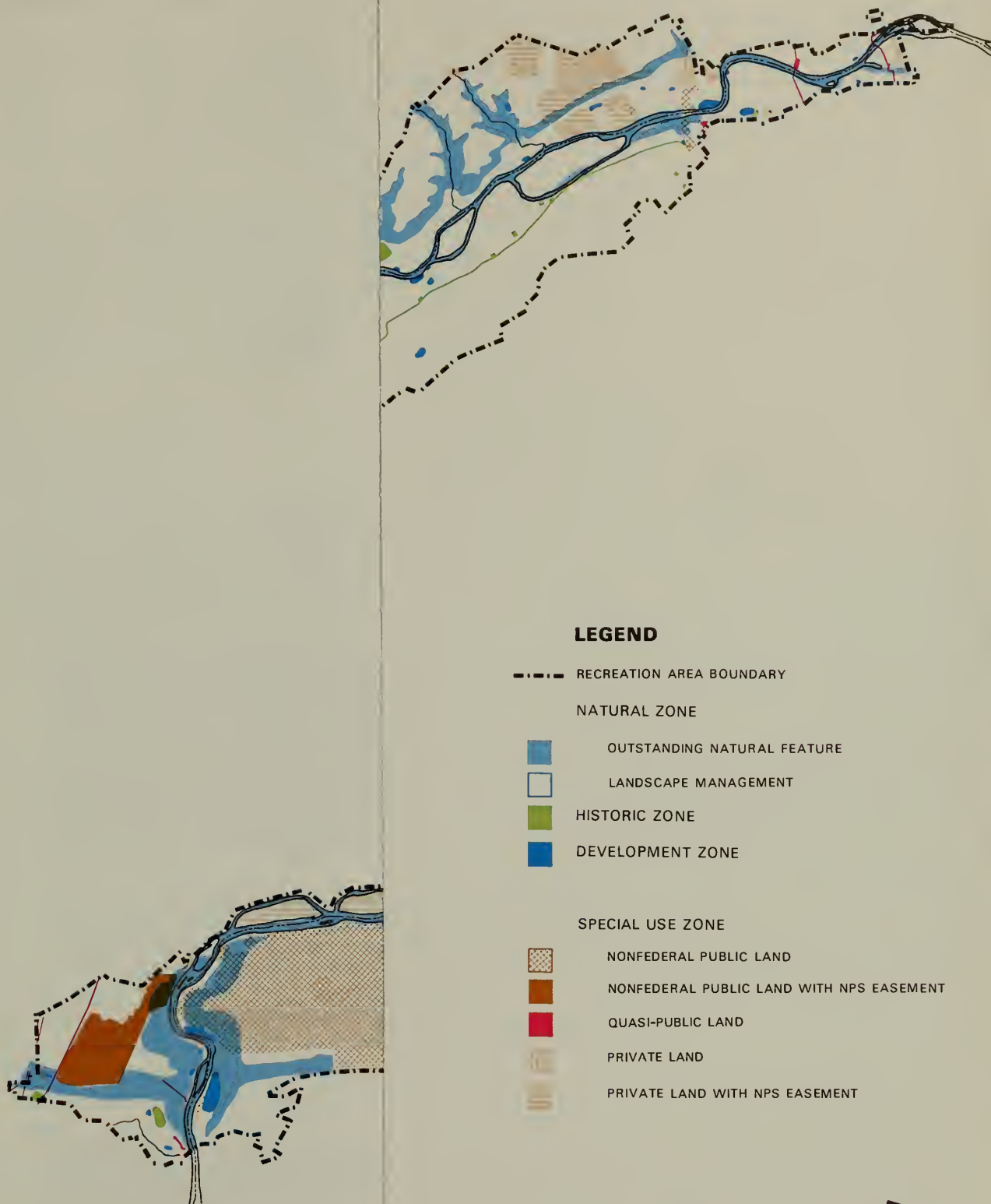
The conservation and management of natural resources to achieve the objectives of the national recreation area would be the focus of management in the natural zone. The degree of use, management, and manipulation would vary by subzone to maintain and enhance the diversity of the area. The National Park Service would maintain primary control over lands and activities within this zone. The following subzones would be designated:

Outstanding Natural Features Subzone--This subzone would consist of geological and biological features with high intrinsic or unique values, such as the Delaware River, the talus slopes of the water gap, Dingmans Falls, the face and ravines of the Pennsylvania plateau, the Kittatinny Ridge, drumlins and kettle holes, and Van Campens Glen, as well as critical habitat for endangered species. Many of these areas are currently receiving use and would continue their roles as focal points for recreation and interpretation. However, if ongoing research discovered areas needing greater protection from resource degradation, then public use could be limited (for example, severely degraded areas could be closed). Development in this subzone would be minimal, such as trails, interpretive waysides and exhibits, and small parking areas.

Landscape Management Subzone--This subzone includes the most acres in the recreation area, and it consists of natural and man-made features that create the scenic diversity of the recreation area. The resources of this subzone would include mature forest vegetation and largely undeveloped areas around lakes and waterfalls as well as open fields and farmsteads. All the lands and resources in this subzone would be managed to maintain and enhance scenic diversity, wildlife habitat, and natural and man-made systems, as appropriate within certain landscape types. Management techniques, which would be specified in a landscape management plan, would include limitations on human intervention, controlled burns, traditional forestry management techniques, farming, grazing, and landscaping. Developed areas in this subzone would be minor in scale and compatible with the environment. Facilities would include trails for hiking, bicycling, cross-country skiing, horseback riding, and snowmobiling; interpretive signs and waysides; and small parking areas.

## Historic Zone

All lands with resources listed on or considered eligible for the National Register of Historic Places would be included in the historic zone (see appendix D). Activities appropriate in this zone would be those involving sight-seeing and study. Development would be limited to that necessary for protection and interpretation, except that adaptive uses would be encouraged and permitted as long as the qualities that make the historic resource significant were not affected.



## MANAGEMENT ZONING PROPOSAL

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



0 1/4 1 2 Miles  
0 1 2 3 Kilometers



# MANAGEMENT ZONING PROPOSAL

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

## Development Zone

The development zone would include all lands used for development and intensive visitor activities. This would encompass building complexes, parking areas, major roads, and utilities. The zone would also include facilities needed to operate the national recreation area, such as headquarters, district maintenance facilities, and district ranger offices.

Intensive visitor use portions of the development zone would serve relatively large numbers of visitors. These areas include beaches, boat ramps, fisherman/canoe launches, open playfields, and picnic areas. Facilities for recreation or education (such as the Pocono and Walpack Valley environmental education centers, Mohican Outdoor Resource Center, Weygadt, and Watergate) would be included and would provide opportunities for the public to learn about the resources of the national recreation area.

## Special Use Zone

All lands within the boundary of the national recreation area over which the National Park Service does not have primary management control would be part of the special use zone. The uses of these lands are diverse, ranging from public recreation areas to private residences. Five special use subzones would be designated.

Nonfederal Public Land Subzone--Currently, the management of nearly all nonfederal public lands within the boundary is compatible with the purposes of the national recreation area. One notable exception is a dump owned by the borough of Milford, Pennsylvania. The National Park Service would continue to try to acquire this property and to terminate the use. Lands in this zone would continue to be managed by nonfederal agencies. Where appropriate, agreements would be initiated with the other agencies to specify conditions for management.

Nonfederal Public Land with NPS Easement Subzone--This subzone would be similar to the previous subzone except that the National Park Service would hold an easement for the nonfederal public areas. This would afford the Park Service a greater opportunity to cooperate with the landowners regarding the use and protection of the resources. Lands in this subzone are part of the watershed that is owned by the borough of Delaware Water Gap; other lands include the areas around the Delaware River bridges held by the Delaware River Joint Toll Bridge Commission.

Quasi-Public Land Subzone--This category would include cemeteries and lands owned by utility companies and railroads. Except for six tracts proposed for fee or easement acquisition, none of the lands in this subzone would be acquired. Cemeteries would not be accepted even if offered by donation because they are a dedicated use and are not suitable for national recreation area purposes. The National

Park Service respects the rights of families or religious organizations to maintain cemeteries.

Private Land Subzone--Lands in this subzone would not be acquired by the federal government for one of the following reasons: local zoning restrictions would provide an acceptable level of protection, lands are proposed for exclusion from the boundary, or no interest (or a very limited interest) would be needed as long as existing uses continued. Lands in this subzone would be acquired in cases of demonstrated hardship, major zoning violations, or where incompatible development was imminent.

Private Land with NPS Easement Subzone--The current Land Protection Plan recommends that easements be acquired for private lands where full fee ownership by the National Park Service is not needed to protect the resources of the national recreation area. In these cases the Park Service would work closely with the individual owners to maintain land uses that would be compatible with the purposes of the recreation area and to ensure that the mutual interests of both owners are protected.

## SCENIC LANDSCAPE MANAGEMENT

The Delaware Water Gap landscape consists of heavily wooded Pennsylvania and New Jersey uplands, the rolling hills of successional forests, the open lowlands of the Delaware and Flatbrook valleys, and the river, tributary streams, and lakes. What appears today is a mosaic of color, texture, scale, and edges, all resulting from many years of human use, including farming and logging. However, many of these uses have now ceased, and without some landscape manipulation, much of the area would eventually return to mature forest, resulting in the loss of the scenic and historical mix of open land and forest.

To conserve the scenic qualities of the Delaware Valley evident when Congress established the area, and to maintain its blend of natural features and examples of human use, the landscape and the vegetation as its dominant element would be managed. Vegetation management would strive to maintain a mix of landscape types, resulting in approximately 15 percent being maintained as open land for agriculture, 8 percent for development, recreation, and historical purposes, 30 percent as productive forest, and 47 percent as maturing forest. A landscape management plan would be developed to determine specific management techniques for various tracts of land within the national recreation area.

A landscape management plan would be prepared to specifically identify areas to be maintained in the various landscape types. The plan would be based on management experience and research information about natural, cultural, and scenic resources; on recreation values; and on patterns of use at park developed areas. It would serve as the umbrella

document for specific action plans dealing with management of the river, the backcountry, agricultural activities, woodlands, fires, scenic vistas, vegetation and wildlife habitat, and archeological resources and historic structures. The management plan would evaluate the historical components of the landscape according to National Register criteria to make a preliminary determination of the area's eligibility for inclusion on the register as a rural historic district. Also nonhistorical structures and features would be identified and evaluated to determine their contribution to the cultural landscape.

The landscape management plan could employ computer mapping to integrate a wide variety of data. Priorities for research and preparation of the specific action plans are identified in the "Natural Resource Management Plan" for the national recreation area.

Some change in the landscape would be inevitable over the long term. However, the goal of the landscape management plan would be to manage change so that it is incremental rather than radical and to enhance the important qualities of the present landscape.

#### NATURAL RESOURCE MANAGEMENT

Natural resource management in the national recreation area would continue to be directed to conserving existing plants, animals, and their habitats, and to maintaining a free-flowing, nonpolluted Delaware River and tributaries. These actions would help maintain the scenic and cultural landscape and provide settings for contemporary recreational opportunities, such as photography, fishing, hunting, pleasure driving, swimming, and camping.

Vegetation types vary throughout the national recreation area as a result of differences in topography and previous human use. In successional and mature forests vegetation would be managed to perpetuate native species, in strict accordance with EO 11987, which limits the use of exotic species. However, in historical, recreational, and cultivated open land, the presence of exotic plant and animal species would be allowed to reflect visual and other aspects of past human use. Exotic plants would be used only if native plants cannot withstand intensive visitor uses.

No plants or animals on the federal endangered or threatened species list has been found within the national recreation area, although the valley is within the range of some species. The peregrine falcon has been sighted, generally during its migration periods, but it is not known to nest in the area. The recreation area provides critical wintering habitat for bald eagles, and winter populations have continued to expand since 1980. As surrounding states continue to expand eagle populations through hatching programs, it is conceivable that eagles will be nesting in the area in the next five to 10 years. Pennsylvania and New Jersey each maintain separate lists of important plant and wildlife species, and several sites containing these species have been located. The National Park Service would continue to protect such plants and their habitats.

Specific surveys would be undertaken to determine the presence of any endangered or threatened species on sites being contemplated for development, alteration, or public use.

Management of fish and wildlife in the national recreation area would continue to be a cooperative endeavor with the states. It would be directed toward maintaining populations for recreational hunting and fishing, aesthetic viewing, educational and scientific study, and overall ecological value. Stocking of artificially reared fish and wildlife by state agencies would continue; however, habitat manipulation or development would favor native fish and wildlife species.

The National Park Service adheres to strict controls on the use of chemical pesticides on its holdings. It is NPS policy that pests be managed only when there is a threat to the resource or to human health and safety. A specific pest might be a weed, fungus, mammal, insect, or other life-form. Different management zones require different criteria for pest management (for example, pest management is more intense in a landscape management zone than in a natural zone).

When it is determined that it is necessary to manage a pest, integrated pest management technology will be used--that is, all physical, cultural, and other nonchemical techniques must be determined to be inadequate before a chemical may be used. When a chemical is determined to be necessary, its use would be integrated with nonchemical techniques to achieve the most effective results. Each chemical used must receive approval from the director of the National Park Service.

The national recreation area staff will work with persons with interests within the boundaries (for example, agricultural use permittees and concessioners) to help ensure their compliance with this policy and to help them develop the most effective pest management techniques possible.

PL 89-158 (sec. 5, cl. 3) states that mineral exploration and mining may be permitted when it is compatible with public recreation and does not significantly impair scenic and other values of the national recreation area. Currently, no mining occurs in the national recreation area, and there are no proposals for mining exploration or development. Mining would impair other resource values and would not be authorized because of its effects on recreation potential and on natural and cultural resource preservation.

The National Park Service would continue to ensure the preservation of the outstanding values of the Delaware River that qualified it for designation under the Wild and Scenic Rivers Act. The entire river segment is free-flowing, without impoundments or areas of slack water. The water is of sufficient quality to support propagation of aquatic life and recreational use. The shorelines of the upper 29 miles are largely primitive, where agriculture and silviculture are compatible with the natural appearance of the river and where recreation developments are generally screened from the river. Developments along the lowermost 6 miles of the river are generally scattered residences. The scenic segment

from Shawnee Island north is accessible by roads, but roads paralleling the riverbank are apparent from the river only in short segments, and only a few bridges cross the river. (See appendix E for a discussion of water quality standards and appendix F for river classification criteria.)

Future visitor use activities and new facilities that could affect water resources would be carefully considered. Although the headwaters of most area streams lie outside the national recreation area's boundary, land use activities on those streams, including sewage and wastewater disposal, have a great potential for affecting the aquatic resource within the recreation area. Therefore, the National Park Service would continue to cooperate with various federal, state, and community agencies with interests and authority in the river basin to protect water quality values. Remedial and preventive actions would be initiated as necessary to preserve the integrity of the river.

Many small, upland lakes and impoundments have the potential of becoming eutrophic because of their size and lack of depth. Hidden Lake has already experienced algal blooms that affect recreational use and the scenic setting. Because most impoundments within the national recreation area are artificial (i.e., created by dams), a chemical would be used as appropriate (that is, where other controls were ineffective) to allow for recreational use. For example, Hidden Lake would be treated as necessary to allow swimming to continue, but Crater Lake would not be treated because there is little or no water contact by visitors. Natural lakes would not be treated, thus allowing normal community dynamics to proceed without interruption.

Cooperation and consultation with several agencies would be needed to achieve the overall natural resource management program. Existing memorandums of understanding with the Pennsylvania Game Commission, Pennsylvania Fish Commission, and the New Jersey Division of Fish, Game, and Wildlife cover fishing and hunting regulations and seasons. More prescriptive agreements would be initiated with these agencies to ensure the collation and exchange of important inventory and use data; the development of consensuses on vegetation management, game stocking, and uniformity of regulations; and the sharing of professional expertise. To achieve effective, coherent, and cohesive natural resource management, it would be mandatory that the three agencies from the two states and the National Park Service share responsibility for planning, funding, and implementing natural resource management actions.

Natural resource management programs would be based on research. To prevent significant long-term adverse effects on the recreation area, the following topics require additional study:

- threatened or endangered plants and their critical habitats

- river use and impacts of use on riparian and riverine environments

- water quality and potential sources of pollution

agriculture, including types of crops, crop rotation, use of fertilizers and pesticides, soil maintenance and erosion control, and wildlife habitat

pests, including agricultural, structural, and exotic, as well as noxious plants

backcountry use and possible impacts to resources

resource basic inventory, consisting of collecting, storing, and analyzing current data about vegetation, topography, etc.

landscape management as it relates to all visually related resources and including maintenance and development activities

fires and the long-term effects of suppression of natural fires

air quality and the effects of pollutants on certain plant species

Priorities for research would be established based on the national recreation area's primary purpose to provide water-oriented recreation and to protect scenic, scientific, and historic features. Specific information about each of the research programs is contained in the "Natural Resource Management Plan" for Delaware Water Gap.

Surveys to meet requirements of various executive orders and laws would be done on a site-specific basis, preceding design or alteration of a site, or as part of a research project. Surveying would be done to meet the Endangered Species Act of 1973 (PL 93-205, 87 Stat 884) and EO 12088.

## CULTURAL RESOURCE MANAGEMENT

Cultural resource management would integrate consideration of natural, cultural, and scenic resources with recreational development needs to ensure that the rural scene was protected. The National Park Service would continue to be sensitive to the value of cultural resources in all maintenance and development activities.

The protection and preservation of cultural resources would involve short- and long-range actions. In the short range, the most pressing need would be to protect archeological sites from pothunting and vandalism and vacant significant structures from deterioration, vandalism, and arson. These problems could be minimized through interpretive programs aimed at making the public more aware of the values of these resources. In the meantime the National Park Service would intensify its patrol and enforcement program.

Historic, architectural, cultural, and archeological resources and their level of significance are indicated on the Cultural Resources Survey map in the "Affected Environment" section and are described in appendix D.

## Archeological Resources

Studies of the national recreation area and surrounding areas have resulted in the discovery of many prehistoric sites that are significant in terms of early patterns of occupation of the Delaware Valley. Currently, 10 archeological sites appear to meet the criteria for inclusion on the National Register of Historic Places (see appendix D). These sites are the most significant of the known areas and are representative of prehistoric occupation. The purpose of the archeological program at the national recreation area would be to protect subsurface resources in place and where necessary to mitigate unavoidable effects from ground disturbance.

The first step in protection would be to acquaint the entire national recreation area staff with the resources, their significance and locations, and the problems of looting and vandalism. Increased vigilance and enforcement would be the best protection for these resources. If necessary, access to some areas would be restricted, or sites would be covered with fill to protect them.

The second step in protection would be archeological research to locate and document sites and to provide for appropriate management guidance over the next 10 years. Research would be conducted in two phases. Phase one would be to collate existing data and to initiate a scientifically designed survey to provide a more complete picture of the prehistory of the area for interpretive and management needs. This survey would comply with the National Historic Preservation Act, as amended; EO 11593 ("Protection and Enhancement of the Cultural Environment"); and 36 CFR 800 ("Regulations for the Protection of Historic and Cultural Properties"). Phase two would involve investigations to evaluate the significance of sites and to determine the contextual, spatial, and temporal extent of the sites.

Because archeological excavation and collection is in itself a destructive process representing an irreversible and irretrievable commitment of the resource, excavation would be avoided, and nondestructive investigation techniques would be used as much as possible. Until the described research program of inventory and evaluation was completed, the interim goal would be to protect archeological sites in place and to recover data from sites that would be unavoidably lost.

When ground-disturbing activities were planned, surface surveying and testing for archeological resources would be required. If sites are known to exist in an area to be disturbed, or if testing revealed the presence of previous occupation, excavation could be necessary. Every effort would be made to avoid destruction of a site by changing or shifting activities or facilities, or by sensitively designing those facilities. If archeological sites could not be avoided, appropriate mitigation would be designed, and all recovered data and artifacts would be preserved.

A great quantity of subsurface remains of farmhouses, fort sites, ferryboat crossings, and similar historic period ruins exist throughout the

recreation area. Many of these have already been identified in studies. Further studies would be undertaken as part of the archeological research program to complete the needed data base.

Beyond the life of the proposed general management plan, limited and large excavations and investigations might be undertaken. Known sites would receive maximum protection so that they would be preserved for future archeological research. Additional sites would be nominated to the National Register if future research and study revealed the significance of known sites or resulted in the discovery of significant new sites. Archeological sites of lesser significance would be protected according to NPS regulations, policies, and guidelines. Optimum protection would be avoidance of a site.

### Historic Resources

To preserve man's past role in the rural scene, the National Park Service would preserve a representative spectrum of cultural resources in the national recreation area (see table 3). The qualities of each structure and site have been identified, and their significance is described in appendix D. Not every structure shown in table 3 would receive the maximum level of treatment possible. Certain structures on the National Register of Historic Places would not be preserved because of minimal (local) significance and the excessive costs involved. These structures would be recorded and allowed to deteriorate (i.e., no treatment to preserve or stabilize a structure beyond that necessary to ensure public safety would occur). In time the sites would revert to a natural condition. If an individual or private entity showed a financial or other commitment to preserve a structure or site that was proposed for deterioration, that assistance could be accepted by the National Park Service.

The qualities identified in table 3 provide the basis for setting priorities and determining the level of treatment. Additional factors, such as administrative needs or particular interest in structures by private parties have resulted in some structures with lower priority numbers being dealt with before those with higher priorities.

Any actions taken on significant structures would maintain the historical, architectural, or cultural integrity of the structure or site at a professional standard.

Significant structures and sites owned by the National Park Service are listed in table 3, along with respective exterior and interior treatments and uses. The various levels of treatment are as follows:

Restoration--the process of recovering the general historic appearance of a structure and its setting by removing incompatible accretions and replacing missing elements as appropriate; exteriors, interiors, or both may be partially or completely restored

Table 3: Proposed Management of Historic Properties

	Qualities				Exterior Treatment						Interior						Use										
	Historic	Architectural	Cultural	Scenic	Integrity	Community Interest	Adaptability	Priority	Restoration	Partial Restoration	Preservation	Modification	Stabilization	Benign Neglect/Removal	Restoration	Partial Restoration	Preservation	Modification	Stabilization	Benign Neglect/Removal	Interpretation/Info.	Quarters	Admin./Maint.	Recreation	Residential	Agriculture	Commercial
Andrew Snable House	X	X	X	X	X			3			X			X							X					X	X
Brodhead-Heller Farm (Wheat Plains)	X	X	X	X	X	X		*													X					X	X
Callahan House	X	X						1					X							X						X	X
Capt. Jacob Shoemaker House	X							2		X										X						X	X
Cornelius Gunn House	X	X	X	X	X	X	X	2																		X	X
DeRemer House (Millville historic district)	X	X	X	X	X	X	X	1																		X	X
Dingmans Dutch Reformed Church	X	X	X	X	X	X	X	2																		X	X
Goldhardt House	X	X	X	X	X	X	X	1																		X	X
John Michael Farm	X	X	X	X	X	X	X	1																		X	X
Marie Zimmerman Complex	X	X	X	X	X	X	X	1																		X	X
Peters House (Corner gift shop)	X	X	X	X	X	X	X	*																		X	X
Richard Layton (Del Russo house)	X	X	X	X	X	X	X	*																		X	X
Schoonover Mountain House	X	X	X	X	X	X	X	1																		X	X
Shoemaker-Houck Farm	X	X	X	X	X	X	X	1																		X	X
Zion Lutheran Church	X	X	X	X	X	X	X	*																		X	X
Appalachian Trail	X	X	X	X	X	X	X	2																		X	X
Cold Springs Farm Springhouse	X	X	X	X	X	X	X	2																		X	X
John Turn Farm Outbuildings	X	X	X	X	X	X	X	2																		X	X
Millville Village Ruins	X	X	X	X	X	X	X	2																		X	X
Neldon-Roberts Schoolhouse	X	X	X	X	X	X	X	*																		X	X
Peters Valley Historic District	X	X	X	X	X	X	X	1																		X	X
Store	X	X	X	X	X	X	X	1																		X	X
Old Dutch Reformed Church	X	X	X	X	X	X	X	1																		X	X
Greek Revival House	X	X	X	X	X	X	X	1																		X	X
Valley Brook Farm	X	X	X	X	X	X	X	1																		X	X
Upper Treible House	X	X	X	X	X	X	X	1																		X	X
Lower Treible House	X	X	X	X	X	X	X	1																		X	X
Robert Stoll House	X	X	X	X	X	X	X	1																		X	X
Hill Top Farm	X	X	X	X	X	X	X	1																		X	X
Mitchell House	X	X	X	X	X	X	X	1																		X	X
Angermann House	X	X	X	X	X	X	X	1																		X	X
McEvoy House	X	X	X	X	X	X	X	3																		X	X
Doremus House	X	X	X	X	X	X	X	1																		X	X

\*Existing use and treatment level to continue.

	Qualities					Exterior Treatment					Interior					Use												
	Historic	Architectural	Cultural	Scenic	Integrity	Community Interest	Adaptability	Priority	Restoration	Partial Restoration	Preservation	Modification	Stabilization	Benign Neglect/Removal	Restoration	Partial Restoration	Preservation	Modification	Stabilization	Benign Neglect/Removal	Interpretation/Info.	Quarters	Admin./Maint.	Recreation	Residential	Agriculture	Commercial	
Slateford Farm Complex	X	X	X	X	X	X	X	*	X	X	X	X	X	X	X						X							
Shanna House		X	X	X	X	X	X	1														X		X				X
Totts Gap Complex	X	X	X	X	X	X	X	*														X	X					
Van Gordon/Eshback Complex		X	X	X	X	X	X	1																			X	
Walpack Center Historic District																												
Church		X	X	X	X	X	X	2												X							X	
Store and Post Office		X	X	X	X	X	X	1																			X	
2nd Robbins House		X	X	X	X	X	X	2															X				X	
1st Robbins House		X	X	X	X	X	X	2															X				X	
2nd Rosenkrans House		X	X	X	X	X	X	2															X				X	
1st Rosenkrans House		X	X	X	X	X	X	2															X				X	
Hendershot House		X	X	X	X	X	X	2															X				X	
Christie House	X	X	X	X	X	X	X	2															X				X	
Peirce House	X	X	X	X	X	X	X	1	X														X				X	
Foster-Armstrong House	X	X	X	X	X	X	X	1		X													X				X	
Neldon-Roberts House (kitchen)								3													X							
Old Mine Road Historic District																												
Black Farmhouse	X		X	X				3																				
Westbrook-Bell House	X	X	X				X	*																				
William Ennis House	X	X	X				X	*																				
Anson Johnson House	X		X	X			X	1																				
Depue House	X		X	X			X	3																				
Birchenough House	X		X	X			X	3																				
Hill House	X		X	X			X	1																				
Fort Shapnack (Fort John) - Site	X							*																				
Isaac Van Campen Inn	X	X	X	X		X		1	X																			
Albert Knight Farmhouse	X		X					3																				
Decker Ferryhouse	X							3																				
Salamovka	X	X	X	X	X	X	X	1																				
Millbrook Village (four historic buildings)	X		X	X			X	*																				
Abraham Van Campen House	X		X	X	X	X	X	1																				
B.B. Van Campen House	X		X	X	X	X	X	1																				
Miller House (Amos Van Campen house)	X	X	X	X	X	X	X	*																				
Van Campen Fort Site/Cemetery	X	X	X	X	X	X	X	*																				
Pahaquarry Copper Mine Ruins	X	X	X	X	X	X	X	*																				
Copper Mine Inn	X		X	X	X	X	X	1																				

\*Existing use and treatment level to continue.

Preservation--the application of measures, including maintenance, to sustain existing form, integrity, and material of structures and settings (excluding reconstruction or restoration of lost features or removal of accretions)

Stabilization--the reestablishment of structural stability by arresting material deterioration and protecting essential form (including ongoing maintenance and reestablishment of weather-resistant conditions)

Modification--nonhistorical alteration of a structure, usually on the interior, to accommodate a new use

Benign neglect--undertaking no treatment to preserve or stabilize a structure beyond that necessary to ensure public safety

Removal--disassembling the existing structure and/or ruins, usually leaving foundations to mark the site

Exterior treatment would range from restoration to benign neglect or removal. Some structures require only minimal work to make them available for their best use, but many of them need substantial replacement or repair of existing conditions. Interior treatment would range from partial restoration to benign neglect or removal, with the majority of structures being modified or stabilized. The level of action on the interior of each building would be subject to the uses determined for that structure. To facilitate adaptive use of some historic structures, small extensions or additions could be attached to buildings to accommodate utility systems or provide for handicap access. The necessity for any addition to a structure would be evaluated in terms of its effects on the significant qualities, and any modification would be done as compatibly as possible.

Before the undertaking of any preservation or restoration activities that involved more than maintenance and emergency stabilization, a historic structure report would be completed for each structure involved. Upon completion of the preservation/restoration action, a historic structure preservation guide would be prepared to provide information for inspection and routine and cyclic maintenance for each structure. A historic structure report or preservation guide would also be required for any historic structure being leased under 36 CFR 18.

The National Park Service would acquire the salvage rights for any federally owned historic properties that had been previously granted to individuals.

The possible uses of federally owned historic structures and sites cover a variety of activities, from NPS administrative and interpretive programs to use by private groups and individuals. Continued adaptive use or occupation of a structure or site would provide protective, visual, and sometimes interpretive benefits. Capacities of the resource would be determined so that use would not cause irreversible damage. For

example, existing structures or their outbuildings could be used to house machinery and harvested crops in conjunction with agricultural uses under the landscape management program. Single-family residential occupancy would be permitted in some of the houses for NPS employees and could be extended to agricultural and other special use permittees.

Under provisions of the National Historic Preservation Act and 36 CFR 18, the National Park Service can allow the use of a historic structure by private individuals. Appropriate lease agreements would be established for each historic structure. The significant aspects of the structure must be preserved, and the integrity of the building and its setting must be maintained in order for a historic structure to be leased. Additionally, the National Park Service would advise holders of special use permits about the significance of a resource within their purview and would provide technical assistance. Lessees or special use permittees would be required to obtain permission from the Park Service before undertaking any activity that would affect the structure or its immediate surroundings.

Adaptive uses could include interpretive and educational functions. The Peters Valley and Walpack Center historic districts are excellent examples of what can be done and the potential to extend these types of adaptive uses. Activities at Peters Valley, including crafts displays, training, and residences, not only protect the individual structures but also provide a village atmosphere, a learning experience for visitors and craftsmen, and an opportunity to interpret architecture. Walpack Center offers a similar potential for adaptive uses, such as lodging, under the historic leasing program as well as NPS administrative uses that would provide a village atmosphere.

Several historic structures have direct interpretive value and would be stabilized and restored. Van Campen Inn is such a structure that has been restored and is available for interpretive use. Activities that could enhance the historical scene, for example, the initiation of a ferryboat crossing similar to those that used to exist along the river, would also be considered.

At Millbrook Village, which is an assemblage of buildings, interpretation would continue through the use of four historic buildings and other structures that have been moved to the site. Additional structures could be moved to this village to enhance the interpretive themes. Structures moved into Millbrook would have to be compatible with and necessary to the preservation and interpretation of the other historic resources, specifically Old Mine Road. The addition of a mill to a village where basic sustenance relied on the operation of such a mill would be a primary requirement for basic interpretive activities.

Cultural landscapes would be retained by keeping vegetation and agricultural use patterns near historic structures. Outbuildings, farm support structures, and fence rows would be kept wherever possible to maintain farmsteads and existing landscape configurations. Proposed treatment levels for related structures would depend on their physical

condition and the potential need of a structure for agricultural purposes and adaptive use.

Many old but nonhistoric structures and features contribute to the cultural landscape of the Delaware Valley. The landscape as a whole, as well as the individual features, would be evaluated based on National Register criteria, and a determination would be made as to its eligibility for nomination to the register as a rural historic district. Based on the contribution of all features, they could either be kept, or recorded and removed, with their component pieces being used for salvage materials to restore historic properties.

Potential uses of any historic structure located in the 100- or 500-year floodplain are restricted by federal regulations. Occupation by humans or animals, or the storage of historic objects or hazardous materials, would be prohibited except under specific protection provisions. Flood-proofing measures to protect historic properties would be designed so as not to adversely affect the historic integrity of the structure or scene. All such actions would be in accordance with Delaware River Basin Commission regulations.

The Old Mine Road, Appalachian National Scenic Trail, and other historic sites would be used for interpretation of historic development and growth of the area as well as for recreational purposes such as hiking and scenic driving. Any actions that would affect the road or trail and their respective corridors would have to meet requirements for preserving their historical and cultural integrity.

The museum collection and archival materials currently in storage would be analyzed to determine which items should be kept. Collection items, including archeological artifacts currently stored at Seton Hall University and Franklin and Marshall College, would be managed according to standards and guidelines for protecting the resources and information. They would be exhibited or stored in appropriately controlled environments, with adequate protection against accidents, theft, and vandalism; they would be examined periodically to ensure protection.

Historic structures not constantly occupied would be provided with fire detection/suppression and intrusion alarm systems once preservation work was completed. The type of systems used would depend on the impact to the historic integrity of the building and the cost versus the significance or value of the historic structure or its contents.

Native American interests and accurate demonstrations of cultural lifestyles could be interpreted and merged into the overall interpretive program managed by the recreation area. Individual proposals would be evaluated on a case-by-case basis and would be based on demonstrated specific heritage ties to the area, the relationship of an action to general public use, actual proposed development, and amount of government support needed.

## Nonfederally Owned Resources

Not all cultural resources within the boundary of the national recreation area are federally owned. Existing, privately owned cultural resources whose uses are compatible with the purposes of the recreation area would be allowed to continue, and protection through an easement for a building or site would be sought from existing owners. The easement would protect a structure's facade or a site as well as its immediate surroundings, outbuildings, and vegetation. Each property would be evaluated on a case-by-case basis to decide whether all or specific exterior parts of a building should be protected. Also the property adjacent to each structure would be evaluated to determine to what extent the setting should be maintained or reestablished. The National Park Service would provide technical assistance for activities that owners wanted to initiate.

Occasionally in the protection of historic resources the acquisition of an easement is unfeasible. If property ownership is considered as a bundle of rights, then the sale of an easement is like selling one or more of those rights. Because the value of any particular right is subject to more negotiation than is the value of fee-simple ownership, often agreement on the sale of an easement is more difficult, if not impossible, to achieve. When easements are not feasible, fee acquisition of a property could be necessary.

Table 4 indicates historic properties and types of protection measures that would be sought for essential public use and protection of nonfederally owned cultural resources (based on the Land Protection Plan).

Table 4: Recommended Protection Measures  
for Nonfederally Owned Historic Properties

<u>Property</u>	<u>Protection Measures</u>
Dingmans Ferryhouse, Pennsylvania	Facade and scenic easement
Dutch Reformed Church, Peters Valley, New Jersey	Facade and scenic easement
Gersham Bunnell House, New Jersey	Facade and scenic easement
Handler Farm, New Jersey	Facade and scenic easement
J.S.K. Aspinall Waterwheel House, Pennsylvania	Scenic easement
John Cleve Symmes Farm, New Jersey	Fee acquisition
Old Mine Road Historic District, New Jersey	
- John Wesley Van Auken House (Ennis ferryhouse)	Fee acquisition
- Rosenkrans House, Flatbrookville	Fee acquisition
- Rosenkrans Ferryhouse	Fee acquisition
- Smith-Roe House	Facade and scenic easement
- Young House	Facade and scenic easement
Tinsmith Shop and Turn General Store, Pennsylvania	Facade easement
Walpack Schoolhouse, New Jersey	Facade easement by donation

## Survey and Research Needs

To update the existing List of Classified Structures and the Cultural Sites Inventory for the national recreation area, and to provide information for interpretive purposes, further research about cultural resources and their history would be required. The existing Historic Base map also needs to be updated. Structures and sites related to human use of the area have been identified for the New Jersey side of the river and for the Pennsylvania portion from Shawnee south; the area north of Shawnee still needs to be surveyed. A second research requirement is the preparation of a historic resource study for the recreation area to identify historical themes and to evaluate existing tangible resources as well as intangible values not represented by sites and remains. One component of the historic resource study would be the preparation of National Register forms for eligible properties that are not yet listed on the register. An expansion of the themes described in the "Visitor Use" section would also be included in the resource study for purposes of cultural resource interpretation.

A major component of the landscape management plan, described in the "Scenic Landscape Management" section, would be a description of all cultural features and an evaluation of their contribution to the eligibility of the area as a rural historic district.

The upland portions of the recreation area must be surveyed to identify locations of prehistoric and historic sites. Investigations of more significant sites are needed to define boundaries and cultural components. A scientific survey would comply with EO 11593, which requires such a survey before the development of recreation and other facilities. It would also provide additional information about the prehistoric settlement patterns of the national recreation area. Any new research data for archeological resources would be collated with existing information.

## VISITOR USE

PL 89-158 charges the National Park Service with providing public outdoor recreation benefits. Through the body of congressional legislation generally pertaining to the national park system, the Park Service is charged with carefully planning and regulating use so that existing resources are perpetuated and maintained unimpaired for future generations. Thus, uses are essentially those that are resource-based and are not consumptive of the resources themselves.

Under the proposal a variety of recreational opportunities for visitors would be dispersed throughout Delaware Water Gap National Recreation Area. This would give people a chance to appreciate the aesthetic, educational, and inspirational qualities of the resource, as well as enjoy themselves. NPS programs would be aimed at both individuals and groups. Programs would be designed to address the needs of non-English speaking visitors and individuals with physical or mental limitations, thus ensuring that all visitors have an opportunity to enjoy the benefits of the recreation area.

No fees would be charged for public recreational activities except in the case of some group activities, cultural events, or certain special recreation services and facilities, as allowed by 36 CFR 71.

Considering the increase in visitor use facilities included in the proposal, as well as the rising visitation trends that the recreation area has been experiencing, projected visitation trends for 1996 would range between 5.0 million and 6.9 million visits.

### Orientation and Information

So that visitors could make the best use of their time and fully enjoy the recreation area, comprehensive information and orientation programs would be provided. The goal of these programs would be to tell visitors about the available opportunities before and during their visits. Recreational activities, fees, schedules and amount of time needed, equipment and physical capabilities required, safety precautions, and regulations would be described, as well as overnight accommodations within the national recreation area. Facilities, literature, and personnel would be strategically placed to help ensure visitor enjoyment and safety, consistent with resource protection. Orientation and information facilities would be located at the main entrances to the recreation area, as shown on the General Development map. These facilities would include wayside panels and kiosks at Hialeah, US 206, Millbrook, and the New Jersey district office, and staffed information stations at Weygadt, Sand Hill, Lapawansa, Dingmans Ferry, and Peters Valley. All these facilities would be designed to present an attractive and readily identifiable image for Delaware Water Gap National Recreation Area.

Information about the national recreation area would also be provided at other public or private information stations, such as the Pennsylvania welcome center on I-80 near the borough of Delaware Water Gap. The park visitor folder could be made available at these locations, and if space allowed and agreements could be reached, interior wall graphics or outside exhibits would also be used. Interpretive materials and publications would continue to be sold by the Eastern National Parks and Monuments Association.

### Interpretation

Interpretive programs for visitors would focus on the natural and human forces that formed the landscape and the lifestyles of the area's inhabitants. The natural history themes would focus on the formation of the Delaware Valley and the Appalachian Plateau and Range, particularly the natural forces that worked for millions of years uplifting, leveling, scouring, and rearranging the landscape. The area's plant and animal communities would also be highlighted. The cultural history themes would encompass the human history of the area--its original inhabitants, their communities, how they used the valley, the arrival of European settlers, and the various phases of development in the valley through agriculture,

transportation, and architecture. The intent of the overall interpretive program would be to give an overview of a particular regional American way of life and to show how events in the Delaware Valley have reflected national attitudes about environmental conservation, the preservation of cultural traditions, and recreation/leisure trends.

Natural Resource Interpretation. Natural features would be interpreted throughout the recreation area by means of wayside exhibits, talks, or guided walks. The water gap itself is probably the most popular feature, with good views from the Arrow Island overlook off PA 611. This overlook shows not only the gap, but also the extensive Kittatinny Ridge. The Point of Gap overlook at the foot of Mount Minsi provides a good view of the tilted rock layers. New exhibits would be provided here, and in summer a geologist/interpreter would be on duty to give talks and answer questions.

Hikers can view the water gap from Lookout Rock, along the Appalachian Trail, the vista on the Arrow Island trail, and at various locations on other trails.

Other natural features would be interpreted in a manner appropriate to their significance and location. Brochures for self-guiding interpretive trails and guided walks would help visitors appreciate specific features and their settings.

The Dingmans Falls and Weygadt areas would be further developed as places for interpreting the natural history of the area as a whole, relating visible features to the effects of recent glaciation. Exhibits, audiovisual programs, and guided walks would be used as means to relate this theme.

Environmental education at the Pocono and Walpack Valley environmental education centers and Mohican Outdoor Resource Center would be continued. These centers help link natural and cultural resource interpretation by showing how man has adapted to the environment and used its resources.

Cultural Resource Interpretation. Interpretation of the area's cultural history would also be conducted at sites throughout the national recreation area, with media varying by location. Cultural resources in the recreation area represent the broad themes of the culture of the Delaware Valley, its settlement by Europeans, and their vernacular architecture. Remnants of prehistoric occupation and use of the valley can be found throughout the recreation area. These themes and examples of each are described in appendix D. Living history interpretation would be conducted at Millbrook and Slateford Farm. At Millbrook NPS personnel and at times members of cooperating organizations dressed in period costumes would provide demonstrations, tours, and special events concerning the historical occupations, crafts, and cultural activities of a mid-1800s village. Additional structures such as a mill could be added to Millbrook to reinforce the village setting. At Slateford Farm slate production and agriculture, along with their role in the regional economy

and the story of the families who lived at the farm, would continue to be interpreted by staff with living history demonstrations. The Montague Association for Restoration of Community History (MARCH) interprets 18th century life at the Neldon-Roberts schoolhouse.

Wayside exhibits at many historic sites and structures would convey various themes such as economic pursuits, the architectural or historical significance of structures, and general valley history. Themes could include early travel and settlement along Old Mine Road, mining at the Pahaquarry copper mine ruins, the advent of tourism at Resort Point, the French and Indian War at Isaac Van Campen Inn and Fort Shapnack, and the American Revolution at Raymondskill Falls. Interpretive trails to important cultural features, with wayside exhibits or pamphlets to explain the importance of a site, would also be developed.

Handouts for self-guided tours, or simple signs or plaques keyed to particular themes, would be prepared for the many other cultural resources. For instance, a tour booklet on some or all of the structures of architectural significance (see appendix D) would help visitors learn about the vernacular architectural style of the Delaware Valley. Because some of the structures would be in use by tenants or lessees, or would be privately owned, tours would be primarily concerned with exterior architectural form and detail.

The Peirce house, at the northern end of the park in Pennsylvania, offers an opportunity for expanded interpretation and education. This could be accomplished through guided tours and an audiovisual program or by establishing a cultural study center. The Peirce Foundation has shown an interest in interpreting the life of philosopher Charles S. Peirce.

Archeological sites of regional significance have been located but would not be actively interpreted on-site because interpretation or signing without adequate protection could lead to their destruction. Eventually an excavated site could be interpreted through an exhibit in place, showing the various levels of artifacts, along with the culture and time period associated with each level. Much information about the early Indian inhabitants could be conveyed through this means.

A tradition of artistic expression has long been associated with the Delaware Valley. Concerts at Watergate and Peters Valley, a center devoted to education in contemporary handicrafts, continue this tradition. Visitors would continue to have the opportunity to watch craftsmen and students at work in their studios and to browse through the exhibit sales area.

Further opportunities to keep alive some regional tradition or craft--for example, quilting, weaving, and the making of apple butter--could be encouraged by developing ties to communities throughout the region. All the historic sites or districts could collectively host special events or celebrations, focusing on local history and lifestyles. The annual Millbrook Days celebration in October, staged by the local Millbrook

Village Society in cooperation with the National Park Service, is a successful means of interpreting the area's historical style. This type of interpretation would be continued and could be expanded.

Recreation Interpretation. Recreational activities that have long been associated with the area, for example, hunting, fishing, trapping, and canoeing, would be interpreted. Recreational skills programs covering such topics as canoe handling or fly-tying could also be conducted. Interpretation of the geology and history along the Delaware River could be given on guided canoe trips.

### Recreational Use

Under the proposal the National Park Service would encourage the widest possible range of recreational uses, in accordance with the purposes of the national recreation area. The Delaware River would continue to be the focus of activities, including canoeing, tubing, fishing, motorboating, and swimming. These activities are not always mutually compatible; for example, fast moving motorboats and other nonmotorized boats present serious safety hazards when the narrow river is being heavily used. Therefore, seasonal speed limits would be established on the river: from April through September, the peak use period, a 5-mph speed limit would be enforced; for the rest of the year a 35-mph speed limit would be enforced. These speeds would effectively eliminate waterskiing. Motorboats would not be permitted on upland lakes.

Protected river swimming areas (that is, where lifeguards would be available) would be continued at Milford and Smithfield. Two new beaches at Sandyston and Eshback would be developed. Protected swimming would be available at Long Pine Lake, and as long as water quality was maintained, it would be continued at Hidden Lake.

Sight-seeing and pleasure driving would continue to be popular activities throughout the year, especially in spring and fall. To enhance this activity, driving tours would be developed through Flatbrook Valley, along Old Mine Road, and on PA 611 and US 209. These tour routes would be signed, interpreted, and illustrated on park maps. Visitors would also be encouraged to experience the national recreation area by hiking, bicycling, horseback riding, and canoeing, allowing them to see the natural and cultural settings close at hand.

Day and overnight hiking opportunities would be expanded by developing a multiple use trail network throughout the recreation area. The Appalachian Trail would continue to be a primary resource. Although its main use would be by through-hikers, connecting and through-trails would be developed to accommodate day hikers within the recreation area. Further development of trails for hiking and horseback riding would be the responsibility of clubs and organizations whose interests would be served by a more extensive network of trails. A variety of old roads that are no longer needed for vehicular circulation would be made available for hiking, horseback riding, and seasonal hunting access.

Routes for snowmobiling would also be designated. (The proposed trail system and uses are shown on the General Development map.)

Camping has long been a traditional use in the Delaware Valley. To meet increasing needs for various overnight experiences within the national recreation area, six types of camping opportunities would be provided--family camping, developed camping (with water and comfort facilities) and primitive camping (without comfort facilities) for hikers and canoeists, and group camping. Camping would be allowed only in designated locations to ensure resource protection (see General Development map).

Commercial campgrounds nearby the recreation area accommodate much of the demand for family camping, but additional facilities are needed to complement day activities available in the national recreation area. Family camping opportunities within the recreation area would be limited because of the many commercial and nonfederal family camping opportunities available in the vicinity. It is expected that New Jersey would continue to provide family camping at Worthington State Forest. NPS concessioners would offer family camping at Dingmans, the Kettle Holes, and Long Pine Lake. The length of stays would be limited, probably a maximum of two weeks, to allow the largest possible number of visitors to stay overnight in the park.

Other overnight uses now accommodated at environmental education centers and the Old Mine Road youth hostel would be continued. Commercial lodging operations at Long Pine Lake and Walpack Center could be developed. Bed-and-breakfast type lodging could be provided in historic structures.

Picnic facilities would be provided at most activity areas. Playfields would be developed for organized sports as well as informal games. In addition two sites have been assigned for more formalized sports by the townships of Montague and Sandyston for their residents.

Outdoor recreational activities that do not constitute traditional or customary park uses would be allowed on a case-by-case basis. Generally these activities should not interfere with more traditional uses of the recreation area, create an undesirable impact on resources, compromise historic or natural scenes, or present a public safety danger (including the safety of the participants). Hang-gliding is an example of a new activity that has been accommodated by designating a field just for this use at Minsi. Requests to hold spectator events, such as raft races, would also be considered on a case-by-case basis.

#### Recreational Uses Provided by Others

Additional recreational uses would be provided by nonfederal public agencies, cooperating associations, private organizations, and private vendors. Table 5 indicates types of uses to be provided, the location, and the actual or possible supplier. Private organizations and vendors

Table 5: Visitor Uses Provided by Others  
Proposed Plan

<u>Type</u>	<u>Location</u>	<u>Supplier</u>
Camping Family	Dingmans campground Long Pine Lake Kettle Holes campground Worthington State Forest	Concessioner Concessioner Concessioner New Jersey Department of Environmental Protection
Primitive (canoe)	Labar and Tocks islands (Worthington)	New Jersey Department of Environmental Protection
Community Field Sports	Sussex Pond Millville ballfield	Special use permittee Special use permittee
Community Service (day camp, etc.)	Zion Church Hidden Lake Schoonover Mountain House	Lessee YMCA Schoonover Community House
Crafts and Arts Centers	Peters Valley Bushkill Millbrook	Peters Valley Craftsmen, Inc. Pennsylvania Guild of Craftsmen Millbrook Village Society
Environmental Education	Pocono Environmental Education Center Mohican Outdoor Resource Center Walpack Valley	Keystone Junior College Trenton State College Eatontown School District
Evening Programs	Watergate	Music Performance Trust Fund
Ferryboat Service	Copper Mine Inn	Concessioner
Food Service	Eshback Milford Beach Sandyston Beach Shanna House Copper Mine Inn Walpack Inn Smithfield Hidden Lake Watergate Long Pine Lake	Concessioner Concessioner Concessioner Concessioner Concessioner Private owner Concessioner Concessioner Concessioner Concessioner
General Sales	Bushkill (Turn general store) Long Pine Lake Service stations	Private owner Concessioner Concessioner
Golfing	Shawnee Cliffpark	Private owner Private owner
Information/Orientation	Montague Peters Valley	MARCH Peters Valley Craftsmen, Inc.
Interpretation Cultural history	Montague	MARCH
Natural history	Sunfish Pond (Worthington)	New Jersey Department of Environmental Protection
Lodging	Long Pine Lake Old Mine Road youth hostel	Concessioner American Youth Hostels, Inc.
Cnicking and Swimming	Long Pine Lake	Concessioner
ayfield	Dingmans campground	Concessioner
our Services and Equipment Rentals (canoe, boat, tube, horse, bicycle, cross-country skis, trolleys)	Outside recreation area and concession operations within recreation area	Commercial use licensees Concessioners

would operate within the national recreation area under concession contracts or permits, cooperative agreements, commercial use licenses, or other formalized arrangements with the National Park Service to ensure a safe and enjoyable experience for users. Additional uses might be provided at structures occupied under the historic leasing program.

### Management of Visitor Use

The responsibility of NPS managers would be to balance visitor use and related facility requirements with resource protection. Significant scenic, natural, and historic features would be protected from misuse or overuse, yet numerous opportunities would be ensured for safe and enjoyable visitor experiences. Overuse by visitors can result in environmental damage, for example, erosion of geologic features, loss of vegetation, or diminished water quality--all of which can be quantified once they occur. The use of physical facilities such as campgrounds or interpretive centers is limited by the size of the facility; however, overuse can result in excessive wear and tear or impacts on adjacent lands.

The sociological effects of overcrowding are more difficult to quantify than environmental effects because they are derived from the subjective reactions of people, and people have different perceptions of what constitutes crowding. Research indicates, however, that there is only a weak relationship between visitor satisfaction and the number of visitors at an area.

Under the proposal visitor use would be managed to control environmental and social impacts. Based on the management objectives for the area, quantitative standards would be set to indicate general limits on environmental and sociological effects that should not be exceeded. Examples of environmental indicators are the square feet of bare earth at a campsite or the width of eroded area along a trail, which could suggest overuse; sociological indicators could include the number of encounters along a trail or the length of time one waits at a boat launch, which could suggest crowding. Standards for environmental damage would be set by NPS scientists, while standards for the visitor experience would be set on the basis of expressed needs and wants of visitors. A systematic monitoring program would be established to determine when use was leading to unacceptable change. If standards were exceeded, the Park Service would take positive steps to redistribute use through public education and information. If necessary, activities would be relocated and facilities would be expanded, redeveloped, or as a last resort, closed to prevent additional adverse impacts on land and water resources.

Visitor use would not be limited, but it could be readjusted or redirected because of visitor crowding or overuse of facilities. Generally a wide range of highly developed facilities and activity areas would help minimize instances of overcrowding. Every effort would be made to develop facilities that would be adequate to accommodate demand to lessen overcrowding.

## ADMINISTRATION

The administration of the national recreation area, which is under the superintendent and assistant superintendent, is organized in four divisions: resource protection and visitor management, visitor services and resource management, maintenance, and administration. All operations would continue to be based primarily out of the headquarters at Bushkill.

The Division of Resource Protection and Visitor Management, which has primary responsibility for enforcing federal laws within the area, would continue to be organized in three districts--one for each state and one for the river. The Division of Visitor Services and Resource Management is responsible for interpretive, educational, research, and cooperative programs for the area. It would continue to be centered at the headquarters, with field offices at the Weygadt visitor contact station and at the Peirce house in northern Pennsylvania.

The Division of Maintenance would continue to be organized in two branches: roads/trails and building/utilities. For greater efficiency and to reduce the time spent by employees traveling to job sites, the maintenance operation would be divided into two districts, one for each state. In Pennsylvania the primary maintenance operation would continue to be located in the south end of the area at the Bushkill headquarters, with a satellite facility developed in the north at the Zimmerman farm. In New Jersey the maintenance operation would be centered at a new facility in the north at Sandyston, and the maintenance operation at Weygadt would serve as a satellite facility. This organization from east to west and north to south would take the best advantage of the existing I-80 and US 206 bridges, which are capable of carrying heavy road maintenance equipment.

The Division of Administration, which is responsible for lands, contracts, and personnel, would continue to operate out of the headquarters.

One of the primary responsibilities of NPS management is to cooperate with other federal agencies, the states, counties, townships, and private groups to ensure that land uses, recreational opportunities, and historic preservation efforts are beneficial to the region, the recreation area, and the public in general. The National Park Service would continue to participate in public forums, as well as informal and formal planning efforts to facilitate coordinated future management for the region.

Management of the recreation area, as well as protection of its resources and visitors, would be greatly facilitated by concurrent federal and state law enforcement jurisdiction. At present the National Park Service has proprietary jurisdiction, that is, rangers can enforce only federal laws, except on US 209 where concurrent jurisdiction is held and rangers can also enforce state laws. Negotiations are underway between the National Park Service and Pennsylvania and New Jersey to establish concurrent jurisdiction on all lands and waters within the boundary of the national recreation area. This would allow the National Park Service to share law

enforcement responsibility with the states and to enforce state laws through the Assimilative Crimes Act. The National Park Service would continue to seek the cession of concurrent jurisdiction from the states for national park system lands on a statewide basis. (The various forms of jurisdiction are defined in appendix G.)

To implement the proposed plan, additional staff positions would be needed. For visitor and resource protection, an additional 7.5 permanent positions and 26.3 work-years of seasonal employees would be needed. An additional three work-years of seasonal employees are needed for visitor services, and seven permanent and 23 seasonal work-years would be needed for maintenance. No additional staff are needed for administration.

Most of the required operations and maintenance activities in the area can be performed during regular work hours by employees who reside outside the recreation area; however, visitor and resource protection are required on a 24-hour basis. There is a need for a limited number of employees to live within the area who can respond quickly to instances of property damage from fire, theft, or vandalism and visitor emergencies requiring search, rescue, and medical assistance. The number of through-roads and external accesses allow for free flow of the public in the area at all times, thus increasing the need for 24-hour protection. Therefore, NPS employee quarters would be dispersed throughout the area at strategic locations so that the maximum response times in emergency situations would be 10 to 15 minutes to any area. In some cases housing employees in historic structures is the only way to protect historic structures.

In addition to required residences for protection purposes it would be necessary to provide low-cost housing for seasonal employees. The seasonal resort nature of the region greatly reduces the supply of rental quarters that are in a price range commensurate with the salaries of lower graded seasonal employees.

Based on these needs employee quarters would be provided at 28 sites within the area. Ten residences would be in historic structures, and two new residences would be required. Eight existing residences would no longer be needed. A quarters management plan would be prepared.

## GENERAL DEVELOPMENT

### Visitor Use and Operations

Under this alternative the National Park Service would directly provide most facilities for visitor use, administration, and maintenance. Private concessioners would provide all food service facilities, family campgrounds, and specialized recreation facilities such as golf courses. All facilities would be dispersed throughout the recreation area to minimize impacts and to enhance the diversity of visitor experiences and the efficiency of operations.

Table 6: Summary of Facilities  
Proposed Plan

<u>Type of Facility</u>	<u>National Park Service</u>	<u>Private Development</u>	<u>Total</u>
Campsites			
Backcountry	45	0	45
Canoe	120	0	120
Family	0	458	458
Group	9	0	9
Parking Spaces			
Automobile	3,887	600	4,487
Bus	80	3	83
Picnic Tables	1,223	208	1,431
Playfields	14	2	16
River Access*			
Canoe put-in	17	0	17
Launch	16	1	17
Ramp	4	0	4
Swim Beaches	5	1	6
Toilet Facilities**	266	11	277
Visitor Information			
Point	4	0	4
Station	5	0	5

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Note: Table 15 in the "Environmental Consequences" section compares existing facilities with those proposed in each alternative.

\* Canoe put-in--no ramp; parking spaces, trail, information wayside, trash receptacle. Fisherman/canoe launch-- stabilized concrete ladder, car/trailer parking spaces, comfort station, trash receptacle, information. Motorboat ramp--concrete ramp, car/trailer parking spaces, comfort station, picnic area, information (personal services, exhibits).

\*\* The type of facility--comfort station, Clivus Multrum, or pit toilet--would be decided for each area during the development concept planning phase.

GENERAL DEVELOPMENT PROPOSAL

PENNSYLVANIA			NEW JERSEY		
1	<b>SLATEFORO FARM</b> Preserve and interpret historic buildings Upgrade and expand 12-car parking area to 40 cars/4 buses Continue commercial tour bus stop Replace 2 portable toilets with 5 toilet facilities (with utilities) Construct 25 picnic sites Upgrade water system	16	<b>SANO HILL NRA ENTRANCE (US 209 South)</b> Construct visitor contact station (with 3 toilet facilities and utilities) and 40-car parking area	33	<b>OINGMANS FALLS</b> Remodel interior of interpretive center Upgrade 60-car/3-bus parking area, hiking trail, and bridges Retain 6 picnic sites, employee house, and comfort station (6 toilet facilities) Relocate leachfield and remove portable toilet
2	<b>DUCK POND</b> Maintain 10-car/1-bus parking area	17	<b>MILLER-HAGEN</b> Construct canoe put-in, 25-car parking area, 10 picnic sites, picnic shelter, playfield, and 2 toilet facilities (with water)	34	<b>OINGMANS CAMPGROUND</b> Continue concessioner-operated family campground (no seasonal campsites) Upgrade 200-car parking area, 2 bathhouses, 2 comfort stations (10 toilet facilities with utilities), trailer dump station, open playfield, and fisherman/canoe launch Construct picnic pavilion
3	<b>ARROW ISLAND</b> Maintain scenic overlook and 20-car parking area Continue commercial tour bus stop	18	<b>COLO SPRING</b> Construct canoe put-in and 5-car parking area	35	<b>PENNSYLVANIA OISTRICT OFFICE</b> Relocate north district maintenance activity to Zimmerman farm Remodel interior of district ranger station Upgrade 10-car parking area and entrance road Construct firing range (Skys Edge)
4	<b>MINSI HANG-GLIOING LAUNCH SITE</b> Maintain 5-car parking area and open field	19	<b>BUSHKILL</b> Preserve historic structures Continue privately operated commercial activities Continue use of Bushkill schoolhouse as river district ranger/naturalist station	36	<b>OINGMANS LAUNCH</b> Construct 3 fisherman/canoe launches; upgrade canoe put-in and entrance road Expand 110-car/boat trailer parking area to 150 cars/boat trailers Replace 2 vault toilets with 10 toilet facilities (with utilities) Retain 10 picnic sites Provide visitor information
5	<b>POINT OF GAP</b> Maintain scenic overlook and 75-car/5-bus parking area Continue commercial tour bus stop Replace 1 portable toilet with 4 toilet facilities (with utilities) Construct motorboat ramp	20	<b>BUSHKILL ACCESS</b> Relocate fisherman/canoe launch Relocate 15-car parking area and expand to 30 cars/boat trailers Upgrade entrance road Construct 2 toilet facilities (with water)	37	<b>ORY BROOK</b> Construct canoe put-in, 15-car parking area, and 1 toilet facility
6	<b>RESORT POINT</b> Maintain scenic overlook and 21-car parking area Continue commercial tour bus stop	21	<b>VALLEY VIEW</b> Upgrade and expand 5 canoe campsites (8 persons/site) to 20 sites and 2 canoe group campsites (25 persons/site) Construct 7 toilet facilities (with water)	38	<b>ZIMMERMAN FARM</b> Develop Pennsylvania satellite maintenance facility
7	<b>PENNSYLVANIA WELCOME CENTER</b> Continue state-operated visitor information center	22	<b>TOMS CREEK PICNIC AREA</b> Maintain 7 picnic sites and expand 10-car parking area to 35-car trailhead parking	39	<b>RAYMONOSKILL FALLS</b> Retain 20-car parking area for trailhead use, 1 comfort station, and 3 picnic sites Remove tourist gift shop (vacant) Upgrade hiking trails
8	<b>SHAWNEE</b> Continue privately operated resort, golf course, swim beach, and canoe and tube launch/takeout	23	<b>EGYPT MILLS PONO</b> Provide 25 backcountry campsites and 2 toilet facilities (with water)	40	<b>SHANNA HOUSE</b> Rehabilitate privately operated restaurant Upgrade and expand 10-car parking area to 50 cars Upgrade utilities
9	<b>HIALEAH NRA ENTRANCE (River Road)</b> Construct 5-car pullout, provide visitor information	24	<b>STUCKI POND</b> Construct 15 picnic sites, 20-car parking area, and 1 toilet facility (with water)	41	<b>INOIAN POINT</b> Construct canoe put-in and 10-car parking area
10	<b>HIALEAH PICNIC AREA</b> Upgrade and expand 33-site picnic area to 45 sites Expand 45-car/1-bus parking area to 50 cars/1 bus Add 2 additional toilet facilities — 4 total (with utilities) Upgrade access and circulation roads	25	<b>ESHBACK BEACH AND LAUNCH</b> Construct swim beach, picnic shelter, 100 picnic sites, and open playfield; provide food service concession; expand 15-car parking area to 250 cars Relocate fisherman/canoe launch Replace 2 portable toilets with 12 toilet facilities/ beachhouse Upgrade entrance road	42	<b>TOCKS AIRPARK</b> Maintain open playfield; improve 20-car parking area
11	<b>SMITHFIELD</b> Retain swim beach, open playfield, 315-car/5-bus parking area, and beachhouse (4 toilet facilities) Provide concession food service Upgrade and expand 15-site picnic area to 50 sites Construct new motorboat ramp Convert motorboat ramp to fisherman/canoe launch and close existing launch Replace portable toilets with 4 toilet facilities (with utilities) Upgrade access and circulation	26	<b>POCOND ACCESS</b> Upgrade canoe put-in to fisherman/canoe launch Construct 15-car/boat trailer parking area Install 1 toilet facility	43	<b>CLIFFPARK</b> Continue privately operated golf course
12	<b>HIALEAH AIRPARK</b> Maintain open playfield and 10-car parking area	27	<b>POCONO ENVIRONMENTAL EOUCATION CENTER</b> Continue privately operated center with open playfield, 15 picnic sites, 50-car/3-bus parking area, and lodging for 250 people Upgrade roads	44	<b>FECHTER POND</b> Construct entrance road, open playfield, 20 picnic sites, 30-car parking area, and 2 toilet facilities (with utilities)
13	<b>FERRY LANOING</b> Construct 10-site picnic area, 25-car parking area, ferryboat landing, and 1 toilet facility (concession) Upgrade access and circulation	28	<b>SHAPNACK ACCESS</b> Maintain canoe put-in and 1 Clivus Multrum toilet facility Construct 10-car parking area	45	<b>LAPAWANSA NRA ENTRANCE (US 209 North)</b> Construct visitor contact station (with 3 toilet facilities and utilities) and 40-car parking area
14	<b>HIDDEN LAKE</b> Maintain open playfield, 80-car/2-bus parking area, employee house, and 10 picnic sites Expand group campsite to 2 sites (40 persons/site); provide 4 toilet facilities (with utilities) Rehabilitate lodge and barn; install utilities Upgrade canoe put-in Construct 6 toilet facilities (with additional storage and utilities) Provide concession food service	29	<b>HORNBECK</b> Upgrade and expand 20 canoe campsites to 25 sites (4 persons/site) Replace Clivus Multrum toilet with 4 toilet facilities (with water)	46	<b>MILFORO BEACH</b> Maintain open playfield, swim beach, picnic shelter, and employee house Provide concession food service Upgrade and expand 20-site picnic area to 200 sites, and 100-car/6-bus parking area to 500 cars/boat trailers and 10 buses Convert motorboat ramps to fisherman/canoe launches Replace comfort station with 10 toilet facilities (with utilities); construct beachhouse with 10 toilet facilities (with utilities); and remove 4 portable toilets Relocate entrance road
15	<b>NRA HEADOUARTERS</b> Make lower floor handicapped accessible Continue use of Pennsylvania maintenance facility Maintain 30-car parking area	30	<b>HORNBECK CREEK ACCESS</b> Construct 1 canoe put-in and 10-car parking area	47	<b>ROBERTS LANE</b> Construct canoe put-in and 5-car parking area
		31	<b>LOCH LDMDND</b> Maintain 10 picnic sites and 20-car parking area for trailhead Replace portable toilet with 1 toilet facility (with water)	48	<b>PEIRCE HOUSE</b> Develop interpretive/educational center Upgrade 2-car parking area to 8 cars Maintain quarters for 1 employee Upgrade water and septic systems
		32	<b>CHILDS PICNIC AREA</b> Reduce 130-site picnic area to 100 sites and 150-car parking area to 100 cars/2 buses Replace 3 vault toilets with 10 toilet facilities (with utilities) Rehabilitate 2 picnic shelters and hiking trails		
				49	<b>WEYGAOT</b> Construct visitor contact station (with 12 toilet facilities) and 125-car/10-bus parking area Provide 25 picnic sites Upgrade utilities Redevelop New Jersey satellite maintenance area Replace and expand ranger station; replace employee house
				50	<b>NEW JERSEY REST AREA</b> Continue state-operated truck pullout
				51	<b>KITTATINNY POINT</b> Maintain scenic overlook and 100-car/5-bus parking area Remodel visitor contact station as picnic shelter, with 10 toilet facilities Upgrade and expand 20-site picnic area to 50 sites; construct additional picnic shelter (2 total) and 4 toilet facilities (with utilities); remove 2 portable toilets Upgrade 2 motorboat ramps; construct 75-car/boat trailer parking area and access road
				52	<b>OUNFIELO CREEK</b> Maintain trailhead parking for 50 cars/2 buses Construct 6 toilet facilities (with water)
				53	<b>WORTHINGTON STATE FOREST</b> Continue use of state-operated 80 family campsites, amphitheater, and fisherman/canoe launch
				54	<b>COPPER MINE INN</b> Rehabilitate privately operated restaurant Remove 75 trailer campsites and 6 pit/portable toilets Construct fisherman/canoe launch with dock and 2 toilet facilities Upgrade 100-car/boat trailer parking area, entrance road, and utilities
				55	<b>OIMMICKS LAUNCH</b> Upgrade access and construct canoe put-in, ferryboat landing, and 25-car parking area (concession)
				56	<b>PAHAQUARRY COPPER MINES</b> Upgrade and expand 12-car parking area to 25 cars; maintain 3-bus parking area Install 3 toilet facilities (with water)
				57	<b>POXONO</b> Maintain fisherman/canoe launch and 6-car/boat trailer parking area Replace portable toilets with 1 toilet facility (with water)
				58	<b>OEPEW RECREATION SITE</b> Maintain open playfield and fisherman/canoe launch Construct 6 toilet facilities (with utilities) and picnic shelter Upgrade and expand 12-site picnic area to 50 sites and 20-car parking area to 75 cars/2 buses Upgrade access and circulation roads
				59	<b>MOHICAN OUTOOOR RESOURCE CENTER</b> Continue privately operated camp, lodging, 45-car/2-bus parking area, and comfort station Upgrade access road

- 60 **VAN CAMPENS GLEN**  
Lower Area: Upgrade and expand 6-site picnic area to 15 sites and 10-car parking area to 25 cars; replace portable toilet with 3 toilet facilities (with utilities)  
Upper Area: Relocate 12-car parking area; rehabilitate entrance road
- 61 **HAMILTON**  
Upgrade and expand 14 canoe campsites (6 persons/site) to 30 sites  
Install 4 additional toilet facilities — 6 total (with water)
- 62 **WATERGATE**  
Maintain open-air concert area (capacity 250)  
Upgrade and expand 12-site picnic area to 50 sites and 30-car parking area to 100 cars/3 buses  
Replace 4 portable toilets with 10 toilet facilities (with utilities)  
Provide concession food service
- 63 **MILLBROOK VILLAGE**  
Maintain living history complex; incorporate additional structures as appropriate  
Construct visitor information contact point, cooperative association food service and gift sales, and central water and septic systems  
Maintain 6 picnic sites  
Relocate 25-car/2-bus parking area and expand to 100 cars/2 buses  
Replace 4 portable toilets with 8 toilet facilities (with utilities)  
Relocate employee quarters to Van Campen house
- 64 **RIVERS BEND**  
Maintain 5 group campsites (40 persons/site), open playfield, and canoe put-in  
Develop 10-car/10-bus parking area  
Replace vault toilets with 10 toilet facilities (with utilities)  
Construct amphitheater  
Upgrade access road
- 65 **STEVENS POINT**  
Construct canoe put-in and 5-car parking area
- 66 **PETERS**  
Upgrade and expand 18 canoe campsites (6 persons/site) to 35 sites  
Install 6 additional toilet facilities — 7 total (with water)
- 67 **SMITH FERRY**  
Construct canoe put-in and 5-car parking area
- 68 **BUCK**  
Construct fisherman/canoe launch, 10-car/boat trailer parking area, and 1 toilet facility
- 69 **BLUE MOUNTAIN LAKES**  
Construct 20 picnic sites, 30-car parking area, and 2 toilet facilities (with water)
- 70 **LONG PINE LAKE**  
Develop concession-operated overnight lodging and 250 family campsites, with food service, 100 picnic sites, swim beach, and 300-car/3-bus parking area  
Rehabilitate structures and upgrade utilities
- 71 **CRATER LAKE**  
Replace 10-car parking area with trailhead parking  
Provide 20 backcountry campsites and 2 toilet facilities (with water)
- 72 **FDRT JOHN**  
Upgrade canoe put-in to fisherman/canoe launch  
Upgrade and expand 5-car parking area to 20 cars/boat trailers  
Construct 1 toilet facility
- 73 **CHADD FARM**  
Develop privately operated equestrian center
- 74 **FLATBROOK VALLEY OVERLOOK**  
Construct 10-car parking area
- 75 **BUTTERMILK FALLS**  
Upgrade and expand 15-car parking area to 25 cars  
Provide 5 picnic sites and 1 toilet facility  
Upgrade access road
- 76 **WALPACK INN**  
Continue privately operated restaurant
- 77 **NEW JERSEY DISTRICT OFFICE**  
Remodel interior of Jacob Roe house  
Establish visitor contact point  
Upgrade parking
- 78 **WALPACK VALLEY ENVIRONMENTAL EDUCATION CENTER**  
Continue privately operated center  
Upgrade access and circulation roads  
Expand parking area to accommodate 3 buses  
Upgrade water and sewer systems
- 79 **WALPACK CENTER**  
Maintain village for privately operated lodging/commercial use  
Retain 1 employee house and post office
- 80 **THUNDER MOUNTAIN**  
Remove 6 structures  
Provide 50 picnic sites, 75-car parking area, open playfield, and 6 toilet facilities (with utilities)  
Upgrade access road
- 81 **PETERS VALLEY**  
Continue privately operated craft village/commercial use  
Maintain visitor contact station, crafts store, and 6 picnic sites  
Upgrade and expand 40-car/2-bus parking area to 85 cars/2 buses  
Replace 4 portable toilets with 6 toilet facilities (with utilities)  
Construct central water and sewer systems and storage  
Improve and expand pedestrian access system
- 82 **SANDYSTON BEACH**  
Construct swim beach, beachhouse with 10 toilet facilities, comfort station with 10 toilet facilities (with utilities), 450-car/8-bus parking area, 200 picnic sites, open playfield, and canoe put-in  
Develop New Jersey maintenance facility and 1 employee house
- 83 **KETTLE HOLES CAMPGROUND**  
Develop concession-operated family campground (100 campsites) with 120-car parking area, 100 picnic sites, and 10 toilet facilities
- 84 **SANDYSTON CANOE CAMPSITES**  
Expand 8 canoe campsites (4 persons/site) to 10 canoe campsites  
Install 1 additional toilet facility — 2 total (with water)
- 85 **SUSSEX POND**  
Continue privately operated playfield and portable toilet
- 86 **NAMANOCK**  
Construct fisherman/canoe launch, 15-car/boat trailer parking area, and 1 toilet facility (with water)
- 87 **OLD MINE ROAD YOUTH HOSTEL**  
Maintain youth hostel  
Upgrade entrance road
- 88 **MINISINK**  
Construct canoe put-in and 5-car parking area
- 89 **WHITE BROOK**  
Construct canoe put-in and 5-car parking area  
Upgrade entrance road
- 90 **US 206 NRA ENTRANCE**  
Construct visitor contact/information kiosk
- 91 **NELDON-ROBERTS SCHOOLHOUSE**  
Maintain visitor contact station (by others)  
Upgrade and expand parking area to 20 cars
- 92 **MILLVILLE**  
Construct 25 picnic sites, open playfield, 40-car parking area, and 3 toilet facilities (with utilities)
- 93 **MILLVILLE ACCESS**  
Construct fisherman/canoe launch, 10-car parking area, and 1 toilet facility
- 94 **QUICKS ISLAND ACCESS**  
Construct canoe put-in and 5-car parking area



Types of facilities provided would include developed river accesses, swimming beaches, picnic grounds and playfields, campgrounds, interpretive and information centers, and an extensive road and trail system. Facilities would be nearly double compared to the existing situation (see table 6), and acres of development would increase from 520 to 900. The General Development map shows the locations of proposed developed areas and the type of facilities.

To provide for a range of recreational interests three types of river accesses would be developed--motorboat ramps, fisherman/canoe launches, and canoe put-ins. Accesses would be staggered along both sides of the river to reduce visual intrusion and congestion. Boat ramps or launches would be provided every 5-7 miles, and canoe put-ins would be spaced approximately every 1.5 miles, with informal put-ins allowed in central New Jersey.

Motorboat ramps would consist of a concrete ramp, parking for cars and boat trailers, comfort facilities, picnicking areas, and information facilities. Existing accesses to the deep pools at Smithfield and Kittatinny Point would be upgraded, and an additional ramp at Point of Gap would be constructed. Fisherman/canoe launches would be less highly developed and would be used primarily by smaller craft. They would consist of a stabilized concrete ladder, car and trailer parking, comfort facilities, and information signs. Nine existing launches at eight sites would be upgraded or maintained, and eight additional launches at seven sites would be constructed. Canoe put-ins would be relatively undeveloped, and boaters would have to carry their craft to the water. Parking areas would be designated, and information signs would be provided. Four existing put-ins would be improved, and 13 additional put-ins would be constructed.

Most day use recreation sites in the area would have facilities for multiple uses. Ten sites would be developed for extensive public use, with facilities for swimming, picnicking, boat launching, and playing. Existing facilities such as at Smithfield, Hidden Lake, Depew, Childs, and Milford would be improved. Development at sites such as Sandyston and Eshback beaches, Millville, and Thunder Mountain would either be entirely new or greatly expanded.

Seventeen sites would be proposed for less extensive public recreation facilities. Most of these sites (for example, Toms Creek, the Pahaquarry Copper Mines, Van Campens Glen, and Loch Lomond) are currently receiving low levels of visitor use for activities like fishing, hiking, or picnicking. These uses would be continued in much the same style, with a moderate expansion of facilities. New visitor use areas would be developed at Fechter Pond, Miller-Hagen, Stucki Pond, and other sites.

No development would be planned in the large, undeveloped areas between Raymondskill and Dingmans Falls. These outstanding natural areas offer opportunities for visitors to experience a pristine environment.

As described under visitor use, camping facilities would be greatly expanded. Family camping areas would be the most highly developed and would accommodate both tent and trailer campers. Each campsite would have a parking space, picnic table, barbeque pit, and trash receptacle. Some sites would be equipped with electrical, water, and sewage connections, and each campground would contain restrooms and shower facilities. All family campgrounds would be operated by private concessioners, and fees would be charged commensurate with surrounding private campgrounds.

The Park Service would provide developed camping areas at Egypt Mills for backcountry campers, at Crater Lake for Appalachian Trail hikers, and at four locations for canoeists. Four primitive camping districts would be designated along the Appalachian Trail, where hikers would have to set up their campsites with a minimum of disturbance. Canoeists would be able to use numerous islands and designated sites along the banks of the Delaware River for primitive camping. No facilities would be provided on the islands, and campers would have to furnish their own water and carry out any solid waste. Water and comfort facilities would be provided at designated canoe campsites along the river. Group camping would be available to organized groups on a reservation basis at Hidden Lake and Rivers Bend and for canoeists at Valley View.

Facilities for operations, administration, and maintenance would be developed, improved, or maintained at a total of seven sites. The headquarters at Bushkill would be maintained, and the lower floor would be made accessible to the handicapped. District offices for resource protection and visitor management at the Bushkill and Dingmans schoolhouses, and at the Jacob Roe house in New Jersey, would be remodeled to meet administrative needs. The area's major maintenance facility for Pennsylvania would continue at Bushkill. A new full service maintenance facility would be constructed in New Jersey near Sandyston beach. The existing district maintenance facility at Dingmans would be relocated to the Zimmerman farm, and the barns would be adaptively used as part of this complex without their significant qualities being impaired. The existing district maintenance facility at Weygadt would be redeveloped as part of the Weygadt visitor use complex.

Cost estimates and a phasing schedule are included in appendix H.

### Access and Circulation

Bus and train transportation are not major factors in access to the region, so private automobiles would continue to be the primary means for visitor access to and circulation within the national recreation area. Charter bus service between metropolitan areas and the national recreation area could be established and would be encouraged.

Roads. The purpose of the road network would be to provide access, with a minimum mileage of roads, to all facilities and resources in the national recreation area. The road system would serve primarily



## PAVED UNPAVED

PAVED

UNPAVED

Open to Public Year-round

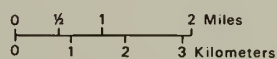
### Open to Seasonal Use

Administrative

## Permanently Closed

## Entrance Closure

Recreation Area Boundary



DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



Legend

PAVED UNPAVED

- Open to Public Year-round
- Open to Seasonal Use
- Administrative
- Permanently Closed
- Entrance Closure
- Recreation Area Boundary

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



# ROADS PROPOSAL

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

park-related traffic. In addition, roads for such seasonal uses as hunting, fishing, bicycling, snowmobiling, and cross-country skiing would be provided to the greatest extent possible. As roads were rehabilitated, designated parking spaces would be developed to accommodate dispersed use patterns.

The park road system would consist primarily of existing roads. Bridges over the Delaware on I-80, US 206, and at Dingmans Ferry connect the two states. In Pennsylvania primary routes for north-south circulation would be the existing US 209, River Road, and in places the Old Milford Road (PA 51001); primary east-west links would be the Buck and Doe Road, Briscoe Mountain Road, PA 739, Silver Lake Road, and Raymondskill Road. In New Jersey primary routes for north-south circulation would consist of the New Jersey River Road, Old Mine Road, and Flatbrook Valley Road; east-west spurs such as the Millbrook/Blairstown Road, the Flatbrookville/Stillwater Road, and numerous other connectors would provide access to various facilities and features.

The Roads map shows paved and unpaved roads that would stay open year-round, those open for seasonal use (that is, they would not be plowed during winter), and administrative use roads. Several roads would be closed permanently to automobile use. These roads would either be gated and allowed to revegetate, scarified and replanted, or converted to trails for horseback riding, cross-country skiing, or hiking.

Slightly over 250 miles of road would be open for public use, another 50 miles would be used only for administrative purposes, and approximately 60 miles would be permanently closed. Of the more than 30 access points to the national recreation area, seven would be closed (three in Pennsylvania and four in New Jersey). Of the 250 miles of roads open to public use, approximately 215 miles would be maintained year-round (125 miles in Pennsylvania and 90 in New Jersey). Twelve miles of road in Pennsylvania and nearly 25 miles in New Jersey would not be open during winter. Roads designated for administrative use only would include 25 miles in Pennsylvania and over 20 miles in New Jersey. Approximately 40 miles of road would be closed in Pennsylvania and 22 miles in New Jersey.

Trails. A multiple use trail network would be developed throughout the recreation area. Connecting and through trails would be provided to accommodate day hikers and to reduce crowding on the Appalachian Trail. A riverside trail for hiking and cross-country skiing on the Pennsylvania side would be developed to complement existing trails. This trail would connect several places of interest, including Bushkill village, Bushkill access, Pocono access, and Dingmans launch. Potential side trails could be built to Toms Creek, Pocono Environmental Education Center (PEEC), and Dingmans Falls. Portions of the old US 209 could be developed, in cooperation with the townships, as a bicycle trail. Somewhat west of the riverside trail and roughly paralleling it along the escarpment of the Pocono Plateau would be a countryside trail, connecting primarily upland areas of interest such as the Egypt Mills backcountry campground, Stucki Pond, and the PEEC. Bridle trails would be developed separate from

hiking trails. One set of loops would be to the north of the countryside trail in Pennsylvania, and one set would be to the south. The loops would lead to areas of interest and other trailhead parking areas. They would be of varying lengths and could be used by all skill levels of users.

Trails on the New Jersey side of the river would also lead to various points of interest, including the Pahaquarry Copper Mines, Watergate, and Millbrook, and they would serve both hikers and bicyclers. Bridle trails as well as hiking and nature trails would traverse the Flatbrook Valley and Kittatinny uplands around Long Pine and Blue Mountain lakes. Hiking trails would also be developed to trace routes through the historic areas around Peters Valley, Van Campen Inn, and Fort John.

Any marked trails could be used as cross-country ski trails during the winter, and parking areas would be plowed to indicate which trails were recommended. Snowmobiling would be allowed on any seasonally closed roads throughout the park, as well as on the existing snowmobile trail in Pennsylvania.

Under this alternative, as in the other alternatives, volunteer individuals, groups, and organizations would be sought to provide a major portion of all trail development and maintenance. Interested clubs or groups could designate whole trails or sections of trails that they would sponsor and for which they would assume maintenance responsibility.

## ALTERNATIVE 1--CONTINUATION OF EXISTING CONDITIONS

Alternative 1 would be a minimum requirements alternative in which existing conditions would be continued without undertaking any major change in policy or management direction. Resources would be managed to meet statutory requirements, and visitor use would be accommodated without any major expenditures or new developments. If funds were not available to implement the proposed plan or alternative 2, then the minimal actions described in this alternative would be undertaken to ensure that visitor safety and resource protection requirements were met. Under this alternative funds to implement the Land Protection Plan could be limited, thereby resulting in a longer time for that plan to be implemented.

### MANAGEMENT ZONES

Under alternative 1 management zones would be essentially the same as under the proposed plan, except for landscape management. Limited funds would not allow for direct or indirect management of vegetation or for natural processes in more than half the recreation area. Therefore, the landscape management subzone in the natural zone would be replaced by a natural environment subzone, and an agricultural use subzone would be added to the special use zone.

The natural environment subzone would be relatively undeveloped; natural resources would be conserved, and natural processes, such as vegetative succession, would be fostered. Vegetation management would be limited to actions to ensure visitor safety, for example, hazardous trees and limbs would be removed in developed areas. Recreational activities not requiring intensive development, such as hiking and hunting, would be allowed.

The agricultural use subzone would be managed for the continuation of existing agricultural activities. These lands would be leased to private parties and used for crops, grazing, orchards, or related purposes. Public use would be limited except for hunting.

Acreages for management zones under this alternative, and the percentages of the national recreation area they constitute, are shown in table 7.

Table 7: Management Zones  
Alternative 1

<u>Zone/Subzone</u>	<u>Acres/Hectares</u>	<u>Percentage of National Recreation Area</u>
Natural Zone		
Outstanding natural feature	16,838 / 6,813	24.2
Natural environment	38,350 / 15,516	55.0
Historic Zone	1,053 / 426	1.5
Development Zone	521 / 211	0.8
Special Use Zone		
Agricultural use	2,662 / 1,077	3.8
Nonfederal public land	6,411 / 2,594	9.2
Nonfederal public land with an NPS easement	16 / 6	0.1
Quasi-public land	726 / 294	1.0
Private land	781 / 316	1.1
Private land with an NPS easement	2,271 / 919	3.3
	<u>69,629 / 28,172</u>	<u>100.0</u>

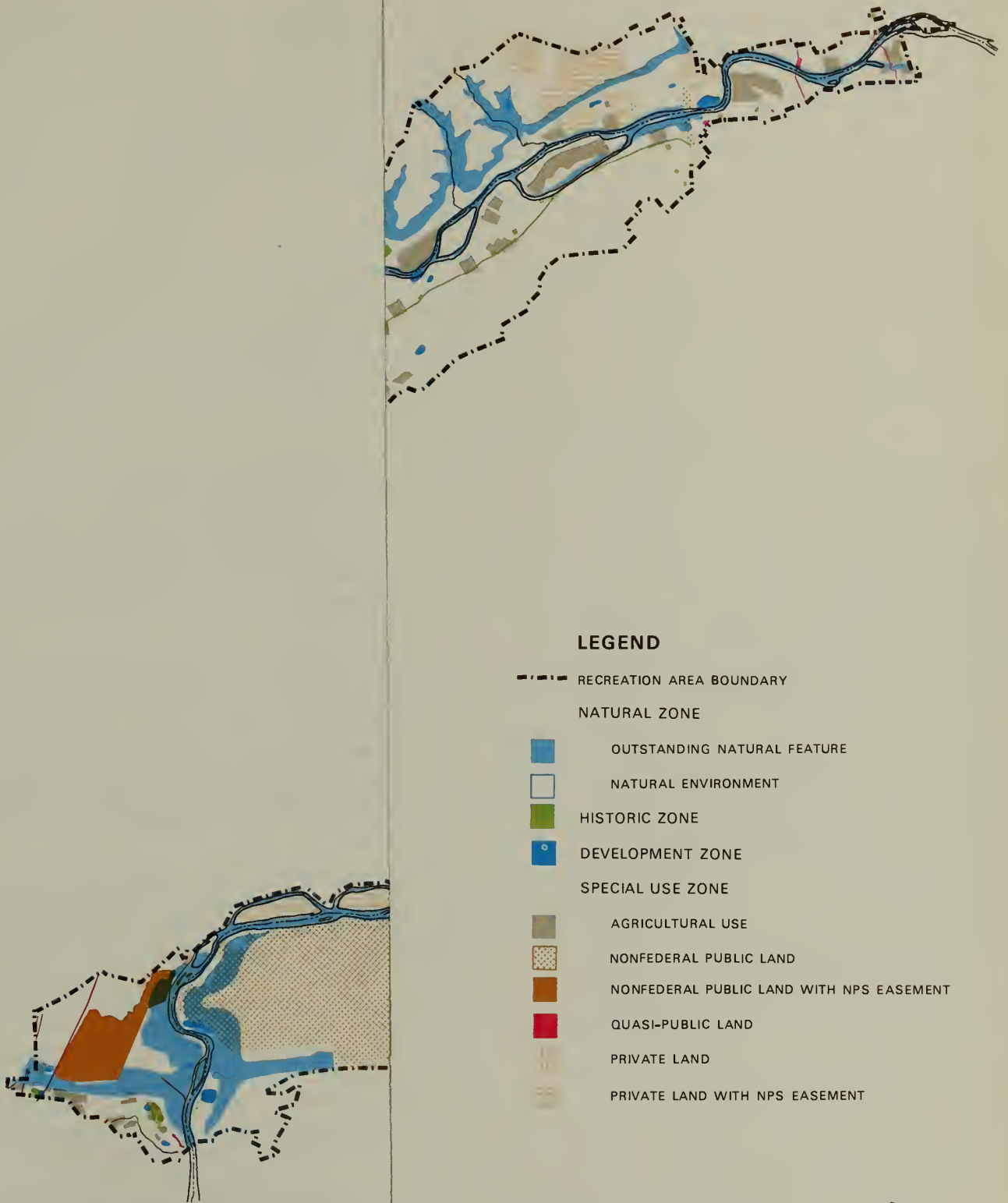
## SCENIC LANDSCAPE MANAGEMENT

Under alternative 1 natural processes would generally be allowed to continue uninterrupted. Present landscaping activities in developed areas, at historic sites, and on nonfederal lands would be continued on approximately 7 percent of the lands. Agricultural activities would continue on the lands that are now farmed (approximately 8 percent), and the remaining 85 percent of the lands would be allowed to succeed to natural climax conditions.

During the 10-year life of this plan, much of the land that is already in early successional stages would progress to woodland. Because of reduced funding for historic site preservation, many of the remaining components of farmsteads, such as outbuildings, barns, and fences, would not be maintained as part of the present landscape.

Scenic vistas in historic areas would be maintained through park maintenance programs, and hedgerows in farm fields would be maintained to the degree possible through cooperative agreements with the farmers.

Fire management would continue through cooperative agreements with the New Jersey Bureau of Forest Fire Management and the Pennsylvania Department of Environmental Resources, and in cooperation with local volunteer fire companies. All fires in the national recreation area would be controlled.



## LEGEND

--- RECREATION AREA BOUNDARY

### NATURAL ZONE



OUTSTANDING NATURAL FEATURE



NATURAL ENVIRONMENT



HISTORIC ZONE



DEVELOPMENT ZONE

### SPECIAL USE ZONE



AGRICULTURAL USE



NONFEDERAL PUBLIC LAND



NONFEDERAL PUBLIC LAND WITH NPS EASEMENT



QUASI-PUBLIC LAND



PRIVATE LAND



PRIVATE LAND WITH NPS EASEMENT

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



## MANAGEMENT ZONING ALTERNATIVE 1

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



## LEGEND

- RECREATION AREA BOUNDARY
- NATURAL ZONE
  - OUTSTANDING NATURAL FEATURE
  - NATURAL ENVIRONMENT
- HISTORIC ZONE
- DEVELOPMENT ZONE
- SPECIAL USE ZONE
- AGRICULTURAL USE
- NDNFEDERAL PUBLIC LAND
- NDNFEDERAL PUBLIC LAND WITH NPS EASEMENT
- QUASI-PUBLIC LAND
- PRIVATE LAND
- PRIVATE LAND WITH NPS EASEMENT

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



## MANAGEMENT ZONING ALTERNATIVE 1

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

The emphasis of agricultural management would be to provide some landscape diversity and wildlife habitat, not maximum crop production, retention of prime farmland in cultivation, or preservation of historic farming practices. The actual cultivation would be done by private individuals under special use permits, and there would be continued pressure to grow crops with maximum cash yield and minimum investment (that is, large fields planted with a single crop). The preferred crops would not provide the diversity of scenic vistas or suitable wildlife habitat.

## NATURAL RESOURCE MANAGEMENT

Current management programs for natural resources would continue at existing funding and staffing levels; cooperative agreements with state agencies would also continue. The objectives would be similar to those of the proposed plan, except that no additional programs would be undertaken.

Vegetation would be managed according to NPS policies and Executive Order 11987, which would allow the evolution of natural systems. However, without active landscape manipulation, the national recreation area would eventually succeed to forest, resulting in the loss of the scenic landscape and historic interspersions of open land and forest that provides the variety of recreation settings.

The National Park Service would continue to protect endangered or threatened plant and wildlife species, and their critical habitats, in the national recreation area. No species on the current federal lists is known to exist in the area; however, it is within the range of some listed species. New Jersey and Pennsylvania each maintain separate lists of species of special concern, and several sites containing these species have been located. The National Park Service would continue to survey for and protect these species and their habitats.

The management of fish and wildlife in the national recreation area would continue as a cooperative endeavor under existing memorandums of understanding with the Pennsylvania Game Commission, Pennsylvania Fish Commission, and New Jersey Division of Fish, Game, and Wildlife. Stocking of artificially reared fish and wildlife by these state agencies would continue; however, the maintenance of habitat would favor native species. Hunting would continue within the national recreation area, in conformance with existing and future laws and regulations.

Minimal pest control would be undertaken. Any programs that were implemented would conform with the laws and regulations applying to the national park system.

Mining would probably not occur under this alternative. All mining proposals would be carefully reviewed to ensure conformance with the area's enabling legislation and laws governing the scenic and recreational river.

Riparian environments that qualified the Delaware River for inclusion in the national wild and scenic rivers system would continue to be protected. Land use activities, including sewage and wastewater disposal, on streams whose headwaters are outside the national recreation area could affect water quality and quantities within the recreation area. The Park Service would cooperate with federal, state, and local agencies with interests in and authority for protecting water quality values within the river basin.

Natural processes would continue in lakes and impoundments. As man-made lakes silted in and became eutrophic, activities would be phased out. Hazardous dams would be breached.

Research programs would continue to encourage independent studies by public and private institutions and organizations, and by other agencies. Surveys would be conducted to meet the requirements of various policies, executive orders, and laws on a site-specific basis before research, design, or construction projects.

### CULTURAL RESOURCE MANAGEMENT

Present cultural resource management programs would be continued at present levels of funding and staffing. The overall number of historic structures preserved would be less than that called for in the proposed plan because of limited funding.

The acquisition of historic properties, as called for in the Land Protection Plan, would occur only if funding levels allowed for obtaining easements or title to properties where there were immediate threats to the significant qualities of those properties.

Minimal archeological investigations would occur and would be based on levels necessary for specific site developments, as called for in the "General Development" section of this alternative.

Efforts to preserve and use significant historic structures would continue, as defined in table 3 in the "Proposed Plan" section. The use of structures or sites under the historic property leasing program would continue at the existing level of effort.

Few activities would be undertaken to retain elements of the cultural landscape under this alternative, such as fence rows, open fields, and patterns of historic occupation.

Although research needs, as outlined in the proposal, would remain the same, it is unlikely that much new research would be undertaken.

Museum collections and archival materials would be managed as described under the proposed plan, thus providing the minimum level of protection as required by NPS policy.

## VISITOR USE

Visitor facilities, programs, and activities would generally continue at present levels, with some minor expansion and improvement to meet public health and safety needs for visitors. Correspondingly, visitor use projections would be likely to continue their present trends, resulting in a range of 3.3 million to 4.6 million visits by 1996. Recreational use of the Delaware River would continue to be emphasized. Most recreational activities would be free; fees would only be charged for specialized and group recreational activities. The National Park Service would continue its efforts to make all facilities accessible to individuals with physical and mental limitations.

### Orientation and Information

Information about available recreational and educational opportunities would continue to be provided at six sites within the recreation area. Four of these sites--Kittatinny Point, Dingmans Falls, Peters Valley, and Millbrook Village--are staffed with personnel to provide information. Information is available at two other sites--at Hialeah through exhibits and at Montague through a cooperative organization (MARCH). Staff at the US 209 fee collection stations would continue to answer questions about the national area.

### Interpretation

Themes for interpretation would be the same as described under the proposed plan. Facilities for interpretation would not be expanded.

Natural Resource Interpretation. New wayside exhibits would be installed throughout the recreation area to interpret natural features and processes. Ranger talks, guided walks, and canoe trips led by naturalists would be continued to the extent possible. Rangers would be stationed seasonally at Point of Gap and Dingmans Falls, primarily to interpret natural history. Audiovisual programs would continue at Dingmans Falls and Kittatinny Point. The Pocono and Walpack Valley environmental education centers and the Mohican Outdoor Recreation Center would continue their privately operated programs.

Cultural Resource Interpretation. New wayside exhibits would be used to interpret cultural history throughout the area. The focus of the interpretive program would continue to be costumed interpreters at Millbrook Village and Slateford Farm, where 18th century village and family life, commerce, agriculture, and industry would be interpreted. Subordinate themes would be interpreted through self-guided tours described in brochures and on maps. Peters Valley would continue to convey the tradition of arts and crafts in the region. Special events such as the annual Millbrook Days would continue to demonstrate the area's folk activities.

## Recreational Use

Currently available recreational activities would be continued, with most use focusing on the Delaware River. Because there would be a limited number of personnel to patrol the river, protect visitors, and enforce speed limits, high-hazard activities such as speedboating and waterskiing would be prohibited.

Swimming, boating, and fishing would continue to be the major water-oriented recreational activities. Swimming beaches with lifeguards on duty would be maintained and improved at Smithfield, Milford, and as long as water quality allowed at Hidden Lake; no additional beaches would be developed. Most river access points would be either canoe/fisherman launch areas or canoe put-ins. Canoeists would probably continue to launch canoes wherever they could find a place to park and get access. The present access points generally have modest launching facilities for visitors and limited parking areas. At canoe put-ins users must generally carry their craft to the water.

Fishing and hunting would continue to be important activities, but little effort would be made to enhance these uses.

Smaller scale recreation sites would generally provide for single uses. Picnicking would be available at Toms Creek and Loch Lomond, river access at Poxono, and model airplane flying at the Tocks flying field and Hialeah air park. Hiking would continue to be available on existing trails; additional trails would be built to meet demands and when private groups offered assistance for construction and maintenance. The Appalachian Trail would be the only trail stretching the length of the recreation area.

Camping facilities would not be expanded, and no developed backcountry sites would be available. The length of overnight stays would be limited to short periods to allow the maximum number of people to camp in the park. The locations of existing canoe and group campsites are shown on the General Development map for this alternative. Short-term family camping would continue at Dingmans campground.

## Recreational Uses Provided by Others

Many of the recreational opportunities at Delaware Water Gap are provided by nonfederal public agencies and cooperating associations, and this would continue to the greatest degree possible. Private owners would continue to offer a variety of items for sale at the Turn general store; golfing would be offered at the privately owned Shawnee and Cliffpark.

Concession activities would be developed at Dingmans campground and at beaches and boat launches where NPS personnel could provide protection. Additional visitor uses could be offered in various historic structures under the historic leasing program.

## Management of Visitor Use

As under the proposed plan visitor use would be managed to protect natural, scenic, and historic features. Because only limited funds would be expected under this alternative, fewer facilities would be available for visitors. This would eventually limit the number of people who could comfortably enjoy the recreation area; however, numbers of visitors would not be limited directly. If significant resource deterioration occurred, facilities or use areas would be closed; if funds were available, replacement facilities could be provided in another area.

## ADMINISTRATION

Under alternative 1 operations would continue to be conducted as they are now, with only minimal changes to various facilities to meet current demands. The National Park Service would continue to seek concurrent jurisdiction on all lands and waters within the recreation area.

Maintenance for the north district would be relocated to the Zimmerman farm, and the south district office would remain at Weygadt, with some reorganization to improve efficiency.

Quarters for park personnel would be required as described under the proposed plan. However, the limited number of facilities and the slight increases in visitation would reduce the number of quarters needed. Existing residences would be rehabilitated as needed, but no new residences would be constructed.

Staffing for alternative 1 would be similar to current requirements. Minimal additions to the staff would be made as a result of increases in visitation: three additional work-years in permanent positions and six work-years in seasonal positions would be needed for visitor and resource protection. Approximately five work-years in permanent positions and 14 seasonal positions would be needed for maintenance. An additional 0.7 work-year in seasonal positions would be needed for visitor services.

## GENERAL DEVELOPMENT

### Visitor Use and Operations

Existing developed areas would be maintained and expanded as funds were available. The General Development map for alternative 1 shows the location of facilities and describes the revisions to be made. The facilities are summarized in table 8.

River access points would continue to be scattered. Several access points are clustered in the middle of the recreation area, and the remainder are spaced approximately every 7-10 miles. Three new launches/put-ins are currently planned for Point of Gap, Bushkill, and Dingmans, where use is already heavy. Other heavily used accesses at Kittatinny, Smithfield,

GENERAL DEVELOPMENT ALTERNATIVE 1

PENNSYLVANIA

- 1SLATEFORD FARM  
Preserve and interpret historic buildings  
Upgrade and expand 12-car parking area to 40 cars/4 buses  
Continue commercial tour bus stop  
Replace 2 portable toilets with 5 toilet facilities (with utilities)  
Construct 25 picnic sites  
Upgrade water system
- 2DUCK POND  
Maintain 10-car/1-bus parking area
- 3ARROW ISLAND  
Maintain scenic overlook and 20-car parking area  
Continue commercial tour bus stop
- 4MINSI HANG-GLIDING LAUNCH SITE  
Maintain 5-car parking area and open field
- 5POINT OF GAP  
Maintain scenic overlook and 75-car/5-bus parking area  
Continue commercial tour bus stop  
Replace 1 portable toilet with 4 toilet facilities (with utilities)  
Construct canoe put-in
- 6RESORT POINT  
Maintain scenic overlook and 21-car parking area  
Continue commercial tour bus stop
- 7PENNSYLVANIA WELCOME CENTER  
Continue state-operated visitor information center
- 8SHAWNEE  
Continue privately operated resort, golf course, swim beach, and canoe and tube launch/takeout
- 9HIALEAH NRA ENTRANCE (River Road)  
Construct 5-car pullout; provide visitor information
- 10HIALEAH PICNIC AREA  
Upgrade and expand 33-site picnic area to 45 sites  
Upgrade 45-car/1-bus parking area  
Replace vault toilet and portable toilets with 2 toilet facilities (with utilities)  
Upgrade access and circulation roads
- 11SMITHFIELD  
Retain swim beach, open playfield, 315-car/5-bus parking area, and beachhouse (4 toilet facilities)  
Provide concession food service  
Upgrade and expand 15-site picnic area to 50 sites  
Construct new motorboat ramp  
Convert existing motorboat ramp to fisherman/canoe launch and close existing launch  
Replace portable toilets with 4 toilet facilities (with utilities)  
Upgrade access and circulation
- 12HIALEAH AIRPARK  
Maintain open playfield and 10-car parking area
- 13HIDDEN LAKE  
Maintain open playfield, 80-car/2-bus parking area, and employee house  
Expand group campsite to 2 sites (40 persons/site); provide 2 toilet facilities (with utilities)  
Upgrade canoe put-in and 6-site picnic area  
Construct 4 toilet facilities (with additional storage and utilities) at swim beach  
Maintain lodge and barn
- 14NRA HEADQUARTERS  
Make lower floor handicapped accessible  
Continue use of Pennsylvania maintenance facility  
Maintain 30-car parking area
- 15SAND HILL NRA ENTRANCE (US 209 South)  
Continue truck turnaround and fee collection station
- 16BUSHKILL  
Preserve historic structures  
Continue privately operated commercial activities  
Continue use of Bushkill schoolhouse as river district ranger/naturalist station
- 17BUSHKILL ACCESS  
Relocate fisherman/canoe launch  
Relocate 15-car parking area and expand to 30 cars/boat trailers  
Upgrade entrance road  
Construct 2 toilet facilities (with water)
- 18TOMS CREEK PICNIC AREA  
Maintain 7 picnic sites and 10-car parking area
- 19ESHBACK LAUNCH  
Maintain fisherman/canoe launch and 15-car parking area  
Replace 2 portable toilets with 1 toilet facility (with water)
- 20POCONO ACCESS  
Maintain canoe put-in
- 21POCONO ENVIRONMENTAL EDUCATION CENTER  
Continue privately operated center with open playfield, 15 picnic sites, 50-car/3-bus parking area, and lodging for 250 people  
Upgrade roads
- 22SHAPNACK ACCESS  
Maintain canoe put-in and 1 toilet facility
- 23HORNBECK  
Maintain 20 canoe campsites (4 persons/site)  
Replace Clivus Multrum toilet with 3 toilet facilities (with water)
- 24LOCH LOMOND  
Maintain 10 picnic sites, 5-car parking area, and 1 portable toilet
- 25CHILDS PICNIC AREA  
Maintain 130 picnic sites and 150-car parking area  
Replace 3 vault toilets with 12 toilet facilities (with utilities)  
Rehabilitate 2 picnic shelters and hiking trails
- 26DINGMANS FALLS  
Remodel interior of visitor contact station/interpretive center  
Upgrade 60-car/3-bus parking area, hiking trail, and bridges  
Retain 6 picnic sites, employee house, and comfort station (6 toilet facilities)  
Relocate leachfield and remove portable toilet
- 27DINGMANS CAMPGROUND  
Change commercial lease campground to concessioner-operated family campground (no seasonal campsites)  
Upgrade 200-car parking area, 2 bathhouses, 2 comfort stations (10 toilet facilities with utilities), open playfield, and fisherman/canoe launch  
Construct picnic pavilion
- 28PENNSYLVANIA DISTRICT OFFICE  
Relocate north district maintenance activity to Zimmerman farm  
Remodel interior of district ranger station  
Upgrade 10-car parking area and entrance road  
Construct firing range (Skys Edge)
- 29DINGMANS LAUNCH  
Construct 1 fisherman/canoe launch; upgrade canoe put-in and 110-car/boat trailer parking area  
Replace 2 vault toilets with 4 toilet facilities  
Provide visitor information  
Retain 10 picnic sites  
Upgrade entrance road
- 30ZIMMERMAN FARM  
Develop north district maintenance facility
- 31RAYMONDSKILL FALLS  
Maintain 20-car parking area for trailhead use, 3 picnic sites, and hiking trails  
Remove tourist gift shop (vacant) and comfort station

- 32SHANNA HOUSE  
Rehabilitate privately operated restaurant  
Retain 10-car parking area
- 33TOCKS AIRPARK  
Maintain open playfield and 20-car parking area
- 34CLIFFPARK  
Continue privately operated golf course
- 35LAPAWANSA NRA ENTRANCE (US 209 North)  
Continue truck turnaround and fee collection station
- 36MILFORD BEACH  
Maintain open playfield, swim beach, picnic shelter, and employee house  
Provide food service by concessioner  
Upgrade and expand 10-site picnic area to 25 sites, and 100-car/4-bus parking area to 190 cars/4 buses  
Convert 2 motorboat ramps to fisherman/canoe launches  
Replace comfort station with 10 toilet facilities (with utilities); construct beachhouse with 10 toilet facilities (with utilities); and remove 4 portable toilets
- 37PEIRCE HOUSE  
Develop interpretive/educational center  
Upgrade 2-car parking area to 8 cars  
Maintain quarters for 1 employee  
Upgrade water and septic systems

NEW JERSEY

- 38WEYGAOT  
Replace and expand south district maintenance area and ranger station; upgrade employee house
- 39NEW JERSEY REST AREA  
Continue state-operated truck pullout
- 40KITTATINNY POINT  
Maintain scenic overlook, visitor contact station (with 10 toilet facilities), and 100-car/5-bus parking area  
Upgrade and expand 20-site picnic area to 50 sites; construct picnic shelter and 4 toilet facilities (with utilities); remove 2 portable toilets  
Upgrade 2 motorboat ramps; construct 75-car/boat trailer parking area and access road
- 41DUNFIELD CREEK  
Maintain trailhead parking for 50 cars/2 buses  
Construct 6 toilet facilities (with water)
- 42WORTHINGTON STATE FOREST  
Continue use of state-operated 80 family campsites, amphitheater, and fisherman/canoe launch
- 43COPPER MINE INN  
Rehabilitate privately operated restaurant  
Remove 75 trailer campsites and 6 pit/portable toilets  
Maintain fisherman/canoe launch and 100-car/boat trailer parking area
- 44PAHAQUARRY COPPER MINES  
Maintain 12-car/3-bus parking area  
Install 2 toilet facilities (with water)
- 45POXONO  
Maintain fisherman/canoe launch, 6-car/boat trailer parking area, and 2 portable toilets
- 46DEPEW RECREATION SITE  
Maintain open playfield, 12 picnic sites, 20-car/boat trailer parking area, and fisherman/canoe launch  
Replace 2 portable toilets with 2 toilet facilities (with water)
- 47MOHICAN OUTDOOR RESOURCE CENTER  
Continue privately operated camp, lodging, 45-car/2-bus parking area, and comfort station  
Upgrade access road

- 48VAN CAMPENS GLEN  
Lower Area: Maintain 6 picnic sites, 10-car parking area, and portable toilet  
Upper Area: Relocate 12-car parking area
- 49HAMILTON  
Maintain 14 canoe campsites (6 persons/site) and 2 Clivus Multrum toilet facilities
- 50WATERGATE  
Maintain open-air concert area (capacity 250)  
Upgrade and expand 12-site picnic area to 50 sites and 30-car parking area to 50 cars/3 buses  
Replace 4 portable toilets with 10 toilet facilities (with utilities)
- 51MILLBROOK VILLAGE  
Maintain living history complex; incorporate additional structures as appropriate  
Maintain 6 picnic sites and visitor information point  
Retain 20-car parking area  
Replace 4 portable toilets with 8 toilet facilities (with utilities)  
Relocate employee quarters to Van Campen house
- 52RIVERS BENO  
Maintain 5 group campsites (40 persons/group), open playfield, and canoe put-in  
Replace vault toilets with 10 toilet facilities (with water)  
Develop 10-car/10-bus parking area
- 53PETERS  
Maintain 18 canoe campsites (6 persons/site)  
Install 2 additional toilet facilities — total 3
- 54LONG PINE LAKE  
Retain structures and utilities for administrative or cooperative use
- 55CRATER LAKE  
Maintain 10-car parking area
- 56FORT JOHN  
Maintain canoe put-in and 5-car parking area
- 57BUTTERMILK FALLS  
Maintain 15-car parking area
- 58WALPACK INN  
Continue privately operated restaurant
- 59NEW JERSEY OISTRICT OFFICE  
Remodel interior of Jacob Roe house
- 60WALPACK VALLEY ENVIRONMENTAL EDUCATION CENTER  
Continue privately operated center  
Upgrade access and circulation roads  
Expand parking area to accommodate 3 buses  
Upgrade water and sewer systems
- 61WALPACK CENTER  
Maintain houses for administrative or cooperative uses
- 62THUNOER MOUNTAIN  
Remove structures  
Construct 20 picnic sites, 25-car parking area, and 2 toilet facilities
- 63PETERS VALLEY  
Continue privately operated craft village/commercial use  
Maintain visitor contact station, crafts store, 40-car/2-bus parking area, and 6 picnic sites  
Replace 4 portable toilets with 4 toilet facilities
- 64SANOYSTON CANOE CAMPSITES  
Maintain 8 canoe campsites (6 persons/site)  
Construct 1 toilet facility
- 65SUSSEX PONO  
Continue privately operated playfield and portable toilet
- 66OLOMINE ROAO YOUTH HOSTEL  
Maintain youth hostel  
Upgrade entrance road
- 67NELOON-ROBERTS SCHOOLHOUSE  
Maintain visitor contact station (by others)



- 80** Orientation/Interpretive Facilities
- 80** Water-Based Recreation Facilities (beaches, river access points, lakes)
- 80** Land-Based Recreation Facilities (picnic areas, campgrounds, ballfields, trailheads)
- 80** Concessioner/Commercial Facilities (food, lodging, recreation)
- 80** Administrative Facilities

#### PROPOSED TRAIL ALIGNMENTS

- |                                |                   |
|--------------------------------|-------------------|
| Hardened Surface Bicycle Trail | Bridle Path       |
| Designated Snowmobile Trail    | Hiking Trail      |
| Trailhead Parking              | Appalachian Trail |

0 1/2 1 2 miles  
0 1 2 3 kilometers



## GENERAL DEVELOPMENT ALTERNATIVE 1

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



- 80** Orientation/Interpretive Facilities
- 80** Water-Based Recreation Facilities (beaches, river access points, lakes)
- 80** Land-Based Recreation Facilities (picnic areas, campgrounds, ballfields, trailheads)
- 80** Concessioner/Commercial Facilities (food, lodging, recreation)
- 80** Administrative Facilities

#### PROPOSED TRAIL ALIGNMENTS

- Hardened Surface Bicycle Trail
- Designated Snowmobile Trail
- Trailhead Parking
- Bridle Path
- Hiking Trail
- Appalachian Trail

0 1/2 1 2 miles  
0 1 2 3 kilometers



## GENERAL DEVELOPMENT ALTERNATIVE 1

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

Table 8: Summary of Facilities  
Alternative 1

<u>Type of Facility</u>	<u>National Park Service</u>	<u>Private Development</u>	<u>Total</u>
Campsites			
Backcountry	0	0	0
Canoe	60	0	60
Family	0	108	108
Group	7	0	7
Parking Spaces			
Automobile	1,844	260	2,104
Bus	50	0	50
Picnic Tables	467	0	467
Playfields	8	2	10
River Access*			
Canoe put-in	7	0	7
Launch	9	1	10
Ramp	3	0	3
Swim Beaches	3	0	3
Toilet Facilities**	142	11	153
Visitor Information			
Point	2	0	2
Station	3	0	3

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Note: Table 15 in the "Environmental Consequences" section compares facilities proposed under each alternative.

\*Canoe put-in--no ramp, some parking; fisherman/canoe launch--stabilized concrete ladder, car/trailer parking spaces, and comfort station; motorboat ramp--concrete ramp, car/trailer parking spaces, comfort station, and picnic area.

\*\*The type of facility may be comfort stations, Clivus Multrums, or pit toilets.

and Milford, as well as the canoe put-in at Hidden Lake, are scheduled to be upgraded.

The facilities at protected swim beaches (Smithfield, Milford, and Hidden Lake) are also to be upgraded with expanded parking areas, comfort facilities, and picnic grounds.

Picnic facilities, in addition to those available at beaches and some river accesses, would be continued at Hialeah, Toms Creek, Loch Lomond, Childs, and Van Campens Glen. A new day facility/picnic ground is planned for Thunder Mountain.

Camping facilities would continue to be limited. Family camping would be available at Dingmans campground, which would be operated by a private concessioner. Group camping would be continued at Hidden Lake and Rivers Bend, and developed canoe campsites would be available at Hornbeck, Hamilton, Peters, and Sandyston.

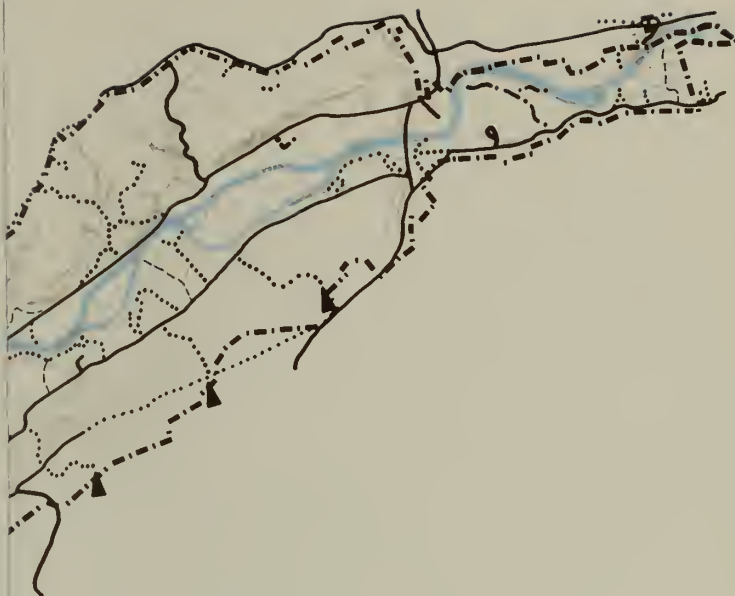
Canoe camping would continue to be allowed at undeveloped sites on islands and along the riverbanks. Camping for hikers on the Appalachian Trail would be allowed at four designated but undeveloped sites. No developed backcountry campsites would be provided anywhere else in the recreation area.

The only significant change in administration, maintenance, and operations facilities would be the relocation of the Pennsylvania district maintenance operation to the Zimmerman farm and the construction of new shops there, as described under the proposed plan. All other administration facilities would be retained in their present locations and only expanded when needed to improve efficiency.

### Access and Circulation

Roads. The purpose of the road network under this alternative would be to provide access to all facilities and resources, while reducing the amount of unneeded roads to the greatest degree possible, along with maintenance and protection responsibilities. In comparison to the proposed plan, the decreased level of development under alternative 1 would result in fewer roads being required for access to development. In addition, the number of roads available for seasonal and administrative use would be decreased.

Approximately 200 miles of road would be open for public use, with approximately 175 miles open for year-round use (100 miles in Pennsylvania and 75 miles in New Jersey) and the other 25 miles open only to seasonal traffic (15 miles in Pennsylvania and 10 miles in New Jersey). About 40 miles of road would be used only for administrative purposes (20 miles in each state). Nearly 115 miles of roads would be closed (70 miles in Pennsylvania and 45 miles in New Jersey). Of the more than 30 access points, 15 would be closed (seven in Pennsylvania and eight in New Jersey).



# Legend

PAVED UNPAVED

- Open to Public Year-round
- - - - - Open to Seasonal Use
- - - - - Administrative
- ..... Permanently Closed
- ▲ Entrance Closure
- - - - - Recreation Area Boundary

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



## ROADS ALTERNATIVE 1

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



- Legend
- | PAVED | UNPAVED |                           |
|-------|---------|---------------------------|
|       |         | Open to Public Year-round |
|       |         | Open to Seasonal Use      |
|       |         | Administrative            |
|       |         | Permanently Closed        |
|       |         | Entrance Closure          |
|       |         | Recreation Area Boundary  |

0 1/4 1 2 Miles  
0 1 2 3 Kilometers



**ROADS ALTERNATIVE 1**  
DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

Trails. Three major types of trails--countryside, backcountry, and  
bridle--would provide visitors with opportunities for close-at-hand  
investigation of resources and appreciation of scenic views. Trails would  
also provide access to other facilities and activities, for example,  
backcountry camping and fishing, as well as outdoor physical activities  
appropriate to each trail. Some trails have dual purposes, such as the  
hiking/cross-country ski trails at Duck Pond and Slateford and  
hiking/nature trails at Hidden Lake, Dingmans Falls, and Watergate.  
Long-distance hikers can follow the Appalachian Trail, crossing the  
Delaware River at the water gap, and continue from Mount Minsi in  
Pennsylvania to the Kittatinny Ridge in New Jersey. Any major  
expansion of trails through the national recreation area would require the  
cooperation and initiative of private local groups and clubs interested in  
developing and maintaining particular types of trails.

Several areas of the national recreation area are becoming more popular  
for informal day activities, such as cross-country skiing around Blue  
Mountain Lakes and ice-fishing at Fechter Pond. If these kinds of  
activities increased, associated trails could be developed and become  
recognized facilities at the national recreation area.

## ALTERNATIVE 2--COMMERCIAL DEVELOPMENT

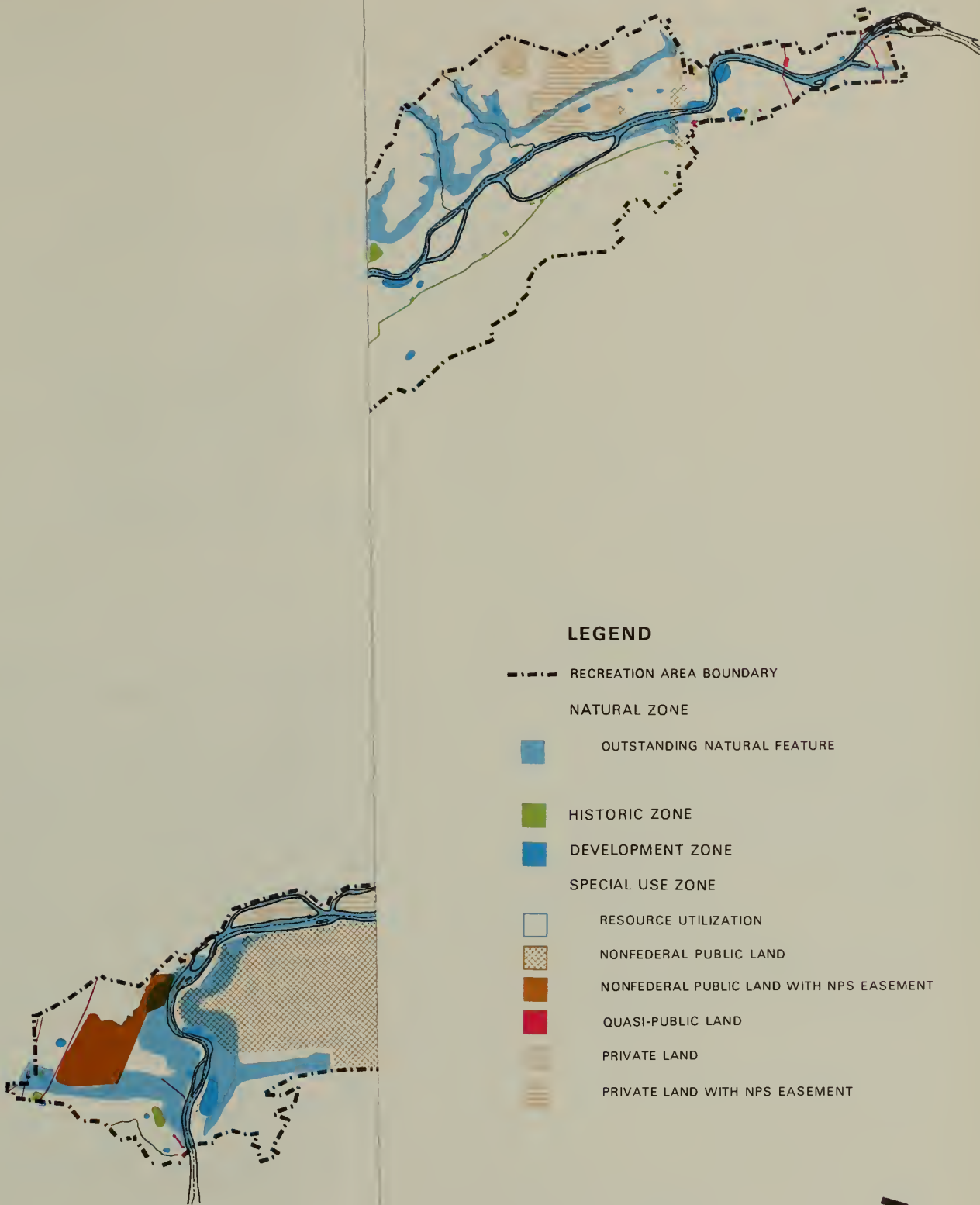
Alternative 2 would promote the greatest possible use of the lands and resources of Delaware Water Gap National Recreation Area through private sector development. The National Park Service would provide minimal facilities for visitors; concessioners would be relied upon to provide all other development and services, and they would be allowed to charge fees to cover operating costs and allow a modest profit. Approximately 60 percent of the lands would be leased for resource utilization, including farming, mining, and timber harvest. The outstanding scenic, scientific, and historic features would be protected, as mandated by the establishing legislation.

Under this alternative the National Park Service would rely on other public and quasi-public entities to protect nonfederally owned lands and resources within the boundary of the national recreation area. Zoning and cooperative agreements would be considered sufficient to protect nonfederal public and private lands. Agreements would be sought with private landowners to ensure that any private development was compatible with the purposes of the national recreation area. Nonprofit conservancies would be relied on to finance land protection strategies and to preserve especially vulnerable resources.

### MANAGEMENT ZONING

The majority of the recreation area (72 percent) would be designated as part of the special use zone, and most of this zone would be managed as part of a resource utilization subzone. Other zones and subzones would be managed as described for the proposed plan. Table 9 lists the acreages for management zones.

Federally owned land in the resource utilization subzone would be leased to private individuals and businesses for resource-based commercial activities such as farming, timber harvest, or mineral extraction. Leases for this land would include provisions for public access except where commercial activities would endanger public safety.



0 1/2 1 2 Miles  
0 1 2 3 Kilometers



## MANAGEMENT ZONING ALTERNATIVE 2

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



## LEGEND

- RECREATION AREA BOUNDARY
- NATURAL ZONE
  - OUTSTANDING NATURAL FEATURE
- HISTORIC ZONE
- DEVELOPMENT ZONE
- SPECIAL USE ZONE
  - RESOURCE UTILIZATION
  - NONFEDERAL PUBLIC LAND
  - NONFEDERAL PUBLIC LAND WITH NPS EASEMENT
  - QUASI-PUBLIC LAND
  - PRIVATE LAND
  - PRIVATE LAND WITH NPS EASEMENT

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



north

**MANAGEMENT ZONING  
ALTERNATIVE 2**  
DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

Table 9: Management Zones  
Alternative 2

<u>Zone/Subzone</u>	<u>Acres/Hectares</u>	<u>Percentage of National Recreation Area</u>
Natural Zone		
Outstanding natural feature	16,838 / 6,813	24.2
Historic Zone	1,053 / 426	1.5
Development Zone	1,895 / 767	2.7
Special Use Zone		
Resource utilization	39,638 / 16,037	56.9
Nonfederal public land	6,411 / 2,594	9.2
Nonfederal public land with an NPS easement	16 / 6	0.1
Quasi-public land	726 / 294	1.0
Private land	781 / 316	1.1
Private land with an NPS easement	<u>2,271 / 919</u>	<u>3.3</u>
	69,629 / 28,172	100.0

#### SCENIC LANDSCAPE MANAGEMENT

Under this alternative the National Park Service would not prepare a landscape management plan as described under the proposed plan, rather it would rely on private enterprise to maintain landscape diversity. It is estimated that approximately 30 percent of recreation area lands could be used for agriculture and mining, 30 percent for woodland management, 30 percent for natural environment, and 10 percent for development. The mix of uses would probably result in a highly diverse landscape. Forested areas would likely be intensively managed for the most profitable timber harvest, agricultural lands would probably be used for the most profitable crop (currently corn), and the most cost-effective mineral operations would be established, thus reintroducing a historical activity. Ranching activities could be reestablished in the Delaware Valley, resulting in a further diversified landscape.

The National Park Service would continue to protect outstanding natural features on approximately 24 percent of the recreation area lands. Natural processes would be fostered in these areas, allowing natural succession of vegetation. Air and water quality would be protected from point source deterioration.

The majority of the recreation area (57 percent) would be made available to the private sector for resource utilization such as farming, timbering,

and mining. Private individuals and businesses would be invited to submit proposals for use of these lands. It can be assumed that profit motivation would determine the highest and best use; therefore, the National Park Service would not predetermine the best use of the resources. Commercial activities and facilities for visitor services, however, would be allowed only in those areas determined to be most suitable, as indicated in this plan. Before leases or permits were issued, lands would be surveyed for endangered or threatened plant and animal species, as well as archeological resources, and the protection of any such resources would be required under the contract documents.

Lessees would be encouraged to use the most environmentally sound farming, timbering, and mining practices so as to reduce any permanent adverse impacts on the area resources. Clear-cutting and open pit mining would not be allowed at locations visible from the segment of the river designated as scenic.

### NATURAL RESOURCE MANAGEMENT

Under this alternative the National Park Service would keep direct management of natural resources to a minimum, although the protection mandated by Congress would be met. Extensive resource management would take place through private sector utilization. Agricultural lands, timber, and mineral resources would be utilized for the greatest economic benefit, although programs would be established to ensure the availability of renewable resources for future utilization. All mining activity would require the approval of the secretary of the interior, and a plan of operation would be required to ensure minimum adverse effects.

The National Park Service would cooperate with the state fish and wildlife agencies in managing wildlife populations, but it would not directly manage wildlife habitat. Increased resource utilization would probably increase landscape diversity and vegetation types, thereby diversifying wildlife habitat.

Hunting would be managed as described in the proposed plan; however, on lands that were leased for resource or recreational development hunting could be further restricted to protect public safety.

The following additional studies would be necessary to implement this alternative:

- protection of the Delaware River and other water resources

- threatened and endangered species

- basic resource inventory, focusing on soils, vegetation, and minerals

- agriculture and forest management, addressing soil maintenance, erosion control, and wildlife habitat

## CULTURAL RESOURCE MANAGEMENT

Cultural resources would be managed as described for the proposed plan. The number of structures undergoing preservation treatment could not be guaranteed because private preservation efforts would probably be directed at structures that could be cost-effectively adapted for other uses.

Some private properties could be acquired to help in the private development of facilities. The development of privately operated resorts where historic properties could be integrated into the overall development concept would be encouraged. Maintaining the historic qualities of significant structures would be the responsibility of the private developer, for NPS structures as well as for privately owned properties within the recreation area.

Archeological investigations would be conducted as necessary to evaluate all areas proposed for NPS and privately developed facilities. All ground-disturbing activities would be preceded by area surveys and excavations funded primarily by private developers. All precautions and procedures described in the proposed plan would be undertaken before and during the construction of facilities.

Treatment levels and uses of structures and sites would be the same as those described for the proposed plan (see table 3). Emphasis on private involvement, especially under the historic property leasing program, could result in more structures being preserved, although this could not be ensured. If visitor services were provided in historic structures, these properties would be managed under the Concessions Policy Act, and they would not qualify for the leasing program. Additional NPS administrative staff would be necessary to manage concessions and the leasing and use of historic structures.

Research needs as explained under the proposed plan would still be required. Extensive research would also be required for any historic structures leased for adaptive uses. Research would be accomplished either by the National Park Service or private developers, depending on available funds and the type of research needed.

The management of museum collections and archival materials would be the same as described under the proposed plan, thus providing the minimum level of protection necessary, as called for in NPS policy.

## VISITOR USE

Under alternative 2 the National Park Service would rely heavily on the private sector to provide recreation facilities throughout the area. A much more commercial range of recreational opportunities would be provided through private development than could be provided by the Park Service directly. Because of this wider variety, probably a larger number of visitors would be attracted to the area. The anticipated

increase in annual visitation could reach between 6.7 million and 9.2 million visits by 1996. Existing NPS facilities would be free of charge to the public, while all new facilities provided by the private sector would be allowed to charge user fees.

### Orientation and Information

To ensure that information about all available resources and activities reached visitors, the National Park Service would continue to provide information and orientation services. At five sites NPS personnel would be available to answer questions and hand out brochures; at four sites exhibits would display needed visitor information. Law enforcement rangers would also be available throughout the recreation area to provide information and answer questions. Cooperating associations, such as MARCH and Peters Valley Craftsmen, would continue to provide information and interpretation. In addition operators of commercial facilities would be expected to provide information about recreational opportunities in the area.

### Interpretation

Interpretive programs at Delaware Water Gap would continue to focus on themes represented by the area's resources, as described in the proposed plan. However, NPS interpretation would be handled primarily by means of exhibits, signs, and publications; personal interpretation by NPS rangers would be limited because their activities would concentrate on law enforcement. Concession operators would be relied upon to provide interpretive services at their developed areas and on commercial tours (such as by canoe, horseback, or bus).

Natural Resource Interpretation. The interpretation of natural resources would be provided at two primary sites--Weygadt and Dingmans Falls. Audiovisual programs would be used at these sites. Elsewhere in the recreation area exhibits would be used to interpret significant natural features. Commercial operators could provide interpretive programs at their developed areas and on guided canoe and horseback trips. Environmental education centers would continue to operate as long as they were economically viable.

Cultural Resource Interpretation. NPS interpretive programs would be focused at Millbrook Village and Slateford Farm. Cooperating associations would be encouraged to continue to provide interpretation at various sites throughout the recreation area and at sites of interest to the local communities. Private lessees of historic buildings could interpret the structures they occupied.

### Recreational Use

Under this alternative, the Delaware River would continue to be the focus of recreational activities; however, much more upland development would

occur. The National Park Service would encourage private enterprise to develop recreation facilities throughout the area. Existing NPS facilities would be retained and kept open for public use, but most new facilities would be provided by the private sector (see table 10).

To reduce safety hazards and conflicts among users while diversifying recreational opportunities, the Middle Delaware would be zoned for different activities. The lower 10 miles between the recreation area boundary and Smithfield (mile 219.5) would be zoned for high-speed motorboating and waterskiing. North of this zone a 5-mile per hour speed for motorboats would be strictly enforced. To minimize conflicts between user groups in the high-speed zone, a passage for nonmotorized craft would be established along the east bank of the river, and swimming would be eliminated at Smithfield. Midway along the river, between Bushkill (mile 228) and Dingmans (mile 238), a second use zone would be established where motorboats would be prohibited during June, July, and August. This zone would provide a primitive river experience for canoeists. At other times of the year, a 5-mph speed limit would be enforced.

The National Park Service would maintain protected swimming areas at three beaches--Milford, Hidden Lake, and Sandyston. Commercial beaches could be developed at as many as five sites. Swimming pools could be provided as part of larger developments.

So that commercial developments would be economically viable, presumably many uses would be located together. For example, a beach and bathhouse would probably be combined with picnic areas, playfields, tennis courts, a boat ramp and boat/canoe/tube rentals, and food service.

Areas that could be developed for multiple uses include Long Pine Lake, where lodging and camping could be provided; Walpack Center, where a village atmosphere could be established, with new lodging facilities, restaurants, and shops; and Flatbrook Valley/Chado farm, where a golf course, swimming pools, horseback riding and cross-country ski trails, and other resort-type facilities could be developed. A new resort hotel could be built at Resort Point, the former location of such a facility. Bed-and-breakfast lodge facilities could be provided in various historic structures.

Numerous campgrounds would be provided by private concessioners for family, tent, and trailer camping. Concession campgrounds would generally be full service facilities with showers, and sewer and electric hookups. The Park Service would provide, maintain, and operate relatively undeveloped backcountry and canoe campsites where sensitive resources require some degree of protection.

Sight-seeing opportunities would remain the same as now. Commercial tour bus routes could be expanded on both sides of the river as development increased.

Table 10: Visitor Uses Provided by Others  
Alternative 2

Type	Location	Supplier
Beach	Cold Spring Dimmicks launch Eshback Millville Smith Ferry	Concessioner Concessioner Concessioner Concessioner Concessioner
Camping - Family	Dingmans campground Long Pine Lake Kettle Holes campground Worthington State Forest  Blue Mountain Lakes Thunder Mountain	Concessioner Concessioner Concessioner New Jersey Department of Environmental Protection Concessioner Concessioner
- Primitive (canoe)	Labar and Tocks islands (Worthington)	New Jersey Department of Environmental Protection
Community Field Sports	Sussex Pond Millville Ballfield	Special use permittee Special use permittee
Community Service (day camp, etc.)	Zion Church Hidden Lake Schoonover Mountain House	Lessee YMCA Schoonover Community House
Convention Facilities	Flatbrook/Walpack/Chado complex	Concessioner
Crafts and Arts Center	Peters Valley Bushkill  Millbrook Flatbrook/Walpack/Chado complex	Peters Valley Craftsmen, Inc. Pennsylvania Guild of Craftsmen Millbrook Village Society Concessioner
Environmental Education	Pocono Environmental Education Center Mohican Outdoor Resource Center Walpack Valley	Keystone Junior College  Trenton State College Eatontown School District
Evening Programs (e.g., concerts, amphitheater programs, theater/playhouse)	Watergate  Cold Spring beach Kettle Holes campground Flatbrook/Walpack/Chado complex	Music Performance Trust Fund Concessioner Concessioner Concessioner
Ferryboat Service	Dimmicks launch Ferry landing	Concessioner Concessioner
Food Service	Eshback beach Milford beach Sandyston beach Shanna House Copper Mine Inn Walpack Inn Smithfield Hidden Lake Watergate Long Pine Lake Millville beach Flatbrook/Walpack/Chado complex Thunder Mountain Peters Valley	Concessioner Concessioner Concessioner Concessioner Concessioner Private Owner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner

Type	Location	Supplier
	Kettle Holes campground	Concessioner
	Borough of Delaware Water Gap	
	Railroad Station	Concessioner
	Cold Spring beach	Concessioner
	Dingmans launch	Concessioner
	Fechter Pond	Concessioner
	Kittatinny Point	Concessioner
	Smith Ferry beach	Concessioner
	Millbrook Village	Cooperating Association
General Sales	Bushkill (Turn general store)	Private owner
	Long Pine Lake	Concessioner
	Service stations	Concessioner
	Kettle Holes campground	Concessioner
	Flatbrook/Walpack/Chado complex	Concessioner
	Borough of Delaware Water Gap	
	Railroad Station	Concessioner
	Raymondskill Falls	Concessioner
	Resort Point	Concessioner
	Bushkill	Concessioner
	Peters Valley	Concessioner
	Dingmans campground	Concessioner
	Peirce house	Concessioner
	Millbrook Village	Cooperating Association
Golfing	Shawnee	Private owner
	Cliffpark	Private owner
	Flatbrook/Walpack/Chado complex	Concessioner
Information/Orientation	Montague	MARCH
	Peters Valley	Peters Valley Craftsmen, Inc.
	Dingmans launch	Concessioner
Interpretation		
- Cultural History	Montague	MARCH
	Peirce house	Concessioner
- Natural History	Sunfish Pond (Worthington)	New Jersey Department of Environmental Protection
	Kettle Holes campground	Concessioner
	Flatbrook/Walpack/Chado complex	Concessioner
Lodging	Long Pine Lake	Concessioner
	Flatbrook/Walpack/Chado complex	Concessioner
	Resort Point hotel	Concessioner
	Bushkill	Concessioner
	Peirce house	Concessioner
	Copper Mine Inn	Concessioner
	Salamovka	Concessioner
	Old Mine Road youth hostel	American Youth Hostels, Inc.
Picnicking	Long Pine Lake	Concessioner
	Millville beach	Concessioner
	Blue Mountain Lakes	Concessioner
	Thunder Mountain	Concessioner
	Dimmicks launch	Concessioner
	Ferry landing	Concessioner
	Cold Spring beach	Concessioner
	Eshback beach	Concessioner
	Dingmans launch	Concessioner
	Smith Ferry beach	Concessioner
	Smithfield	Concessioner
	Dingmans campground	Concessioner

Type	Location	Supplier
Playfields	Millville beach Thunder Mountain Cold Spring beach Eshback beach Dingmans campground Smith Ferry beach Smithfield Fechter Pond	Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner
River Access		
- Ramp	Kittatinny Point of Gap Smithfield	Concessioner Concessioner Concessioner
- Launch	Millville beach Eshback beach Dingmans campground Smithfield	Concessioner Concessioner Concessioner Concessioner
- Canoe put-in	Dingmans launch Dimmicks launch	Concessioner Concessioner
Sports Facilities (e.g., indoor/outdoor tennis courts, racquet ball courts, skating rinks, bowling alley, horseshoes and similar lawn games, driving range, batting cage, and miniature golf)	Bushkill Flatbrook/Walpack/Chado complex Long Pine Lake Kettle Holes campground Dingsmans campground Blue Mountain Lakes Smith Ferry beach Thunder Mountain	Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner
Swimming (lake or pool)	Long Pine Lake Flatbrook/Walpack/Chado complex Thunder Mountain Dingmans campground	Concessioner Concessioner Concessioner Concessioner
Tour Services, Trails, and Equipment Rentals (e.g., canoe, horseback, and bicycle guided trips; horse, bicycle, and cross-country trails; canoe/boat, bicycle, horse, ski equipment rentals)	Borough of Delaware Water Gap Railroad Station Smithfield Hidden Lake Eshback beach Dingmans launch Shanna House Fechter Pond Copper Mine Inn Pahaquarry Copper Mines Smith Ferry beach Long Pine Lake Flatbrook/Walpack/Chado complex Thunder Mountain Sandyston beach	Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner
Winter Sports Facilities (e.g., ski trails, bob- sled/dogsled runs, ice-skating rink)	Flatbrook/Walpack/Chado complex Fechter Pond Smithfield Thunder Mountain Raymondskill Falls	Concessioner Concessioner Concessioner Concessioner Concessioner

## Management of Visitor Use

Visitor use would be handled much the same way under alternative 2 as under the proposed plan. Standards would be set for social and environmental conditions, and a monitoring program would be established. If those standards were exceeded and extensive degradation of resources occurred, specific activities could be relocated or terminated. It is assumed that commercial facilities would be developed to meet demands, with a level of crowding below that which would be acceptable to most visitors.

## ADMINISTRATION

Under alternative 2 park operations would be similar to those described for alternative 1 because many of the developed areas would be administered by private concessioners. Ranger district offices would remain in the same locations, as would headquarters at Bushkill.

NPS maintenance activities would be primarily directed to roads and utilities rather than to facility upkeep; private concessioners would have to maintain their facilities. A new NPS maintenance facility would be constructed at the Zimmerman farm to serve the northern end of the national recreation area on both sides of the river.

Staffing requirements would shift slightly to a greater emphasis on administration and protection. The administrative staff would be increased by 6.5 work-years to supervise concession contracts, as described for the proposed plan.

Protection personnel would increase by 11 work-years of permanent positions and 16.3 work-years of seasonal positions to handle increased visitation. Maintenance staff would be increased by about half the increase required by the proposed plan, 3.6 work-years permanent and 16.2 work-years seasonal, primarily for road maintenance. Visitor service would be increased by 3.5 seasonal work-years for coordination of information services.

The number of quarters for NPS personnel would be similar to what would be required under alternative 1. More protection rangers would be quartered near the large private concession developments. The National Park Service would remain primarily responsible for visitor protection and safety.

## GENERAL DEVELOPMENT

### Visitor Use and Operations

Developed areas would more than double in size under alternative 2 as compared to the proposed plan (see table 11).

GENERAL DEVELOPMENT ALTERNATIVE 2

PENNSYLVANIA			
1	<b>SLATEFDRD FARM</b> Preserve and interpret historic buildings Upgrade and expand 12-car parking area to 40 cars/4 buses Continue commercial tour bus stop Replace 2 portable toilets with 5 toilet facilities (with utilities) Construct 25 picnic sites Upgrade water system		
2	<b>DUCK PDND</b> Maintain 10-car/1-bus parking area		
3	<b>ARRDW ISLAND</b> Maintain scenic overlook and 20-car parking area Continue commercial tour bus stop		
4	<b>MINSI HANG-GLIDING LAUNCH SITE</b> Maintain 5-car parking area Expand open field to other side of the mountain		
5	<b>POINT DF GAP</b> Maintain scenic overlook and 75-car/5-bus parking area Continue commercial tour bus stop Replace 1 portable toilet with 4 toilet facilities (with utilities) Allow private development of motorboat ramp		
6	<b>RESDRT PDINT</b> Maintain scenic overlook and 21-car parking area Construct 5 picnic sites Continue commercial tour bus stop Encourage private development of resort complex Construct Appalachian Trail footbridge over Delaware River		
7	<b>PENNSYLVANIA WELCDME CENTER</b> Continue state-operated visitor information center		
8	<b>BOROUGH DF DELAWARE WATER GAP RAILRDAD STATION</b> Encourage commercial development for concession bicycle rental, food service, and sales		
9	<b>SHAWNEE</b> Continue privately operated resort, golf course, swim beach, and canoe and tube launch/takeout		
10	<b>HIALEAH NRA ENTRANCE (River Road)</b> Construct 5-car pullout, provide visitor information		
11	<b>HIALEAH PICNIC AREA</b> Upgrade and expand 33-site picnic area to 45 sites Upgrade 50-car/1-bus parking area Replace vault toilet and portable toilets with 4 toilet facilities (with utilities) Upgrade access and circulation roads		
12	<b>SMITHFIELD (Private Concession Development)</b> Remove swim beach Retain open playfield, 315-car/5-bus parking area, and beachhouse (4 toilet facilities) Upgrade and expand 15-site picnic area to 50 sites Construct new fisherman/canoe launch Upgrade and expand motorboat ramp Develop commercial food service and canoe/boat rental Replace portable toilets with 4 toilet facilities (with utilities) Upgrade access and circulation		
13	<b>HIALEAH AIRPARK</b> Maintain open playfield and 10-car parking area		
14	<b>FERRY LANDING (Private Concession Development)</b> Construct 10-site picnic area, 25-car parking area, and ferryboat landing Upgrade access and circulation		
15	<b>HIDDEN LAKE</b> Rehabilitate lodge and barn by concessioner for food service and equipment rentals; install utilities Maintain open playfield, 80-car/2-bus parking area, and 1 employee house		
		Expand group campsite to 2 sites (40 persons/site); provide 4 toilet facilities (with utilities) Upgrade and expand 10-site picnic area to 25 sites Upgrade fisherman/canoe launch Construct 6 toilet facilities (with additional storage and utilities)	
	16	<b>NRA HEADDUARTERS</b> Make lower floor handicapped accessible Continue use of central maintenance facility Maintain 30-car parking area	
	17	<b>SAND HILL NRA ENTRANCE (US 209 South)</b> Construct visitor contact station (with 3 toilet facilities and utilities) and 40-car parking area	
	18	<b>MILLER-HAGEN</b> Construct canoe put-in, 25-car parking area, 10 picnic sites, picnic shelter, 2 toilet facilities (with utilities), and playfield	
	19	<b>CDLD SPRING BEACH (Private Concession Development)</b> Construct swim beach, beachhouse (with 10 toilet facilities and utilities), 450-car/8-bus parking area, 200 picnic sites, open playfields, amphitheater, food service facility, and 10 toilet facilities (with utilities)	
	20	<b>BUSHKILL</b> Preserve historic structures Continue privately operated commercial activities Continue use of Bushkill schoolhouse as river district ranger/naturalist station Encourage private development of lodging facilities	
	21	<b>BUSHKILL ACCESS</b> Relocate fisherman/canoe launch Relocate 15-car parking area and expand to 50 cars/boat trailers Upgrade entrance road Construct 4 toilet facilities (with water)	
	22	<b>VALLEY VIEW</b> Upgrade and expand 5 canoe campsites (8 persons/site) to 20 sites; provide 2 group campsites (25 persons/site) Construct 7 toilet facilities (with utilities)	
	23	<b>TOMS CREEK PICNIC AREA</b> Maintain 7 picnic sites and expand 10-car parking area to 35-car trailhead parking area	
	24	<b>EGYPT MILLS PDND</b> Provide 25 backcountry campsites and 2 toilet facilities (with water)	
	25	<b>STUCKI PDND</b> Construct 15 picnic sites, 20-car parking area, and 1 toilet facility (with water)	
	26	<b>ESHBACK BEACH AND LAUNCH (Private Concession Development)</b> Construct swim beach, picnic shelter, 100 picnic sites, and open playfield; provide food service and bicycle rentals; expand 15-car parking area to 250 cars Relocate fisherman/canoe launch Replace 2 portable toilets with beachhouse (12 toilet facilities) Upgrade entrance road	
	27	<b>PDCDNO ACCESS</b> Upgrade canoe put-in to fisherman/canoe launch Construct 15-car/boat trailer parking area Install 1 toilet facility	
	28	<b>POCOND ENVIRDNMENTAL EDUCATION CENTER</b> Continue privately operated center with open playfield, 15 picnic sites, 50-car/3-bus parking area, and lodging for 250 people Upgrade roads	
	29	<b>SHAPNACK ACCESS</b> Maintain canoe put-in and 1 Clivus Multrum toilet facility Construct 10-car parking area	
	30	<b>HORNBECK</b> Upgrade and expand 20 canoe campsites to 25 sites (4 persons/site) Replace Clivus Multrum toilet with 4 toilet facilities (with utilities)	
	31	<b>HDRNBECK CREEK ACCESS</b> Construct 1 canoe put-in and 10-car parking area	
	32	<b>LDCH LDMDND</b> Maintain 10 picnic sites and 20-car trailhead parking area Replace portable toilet with 1 toilet facility (with water)	
	33	<b>CHILDS PICNIC AREA</b> Reduce 130-site picnic area to 100 sites and 150-car parking area to 100 cars/2 buses Replace 3 vault toilets with 10 toilet facilities (with utilities) Rehabilitate 2 picnic shelters and hiking trails	
	34	<b>DINGMANS FALLS</b> Remodel interior of interpretive center Upgrade 60-car/3-bus parking area, hiking trail, and bridges Retain 6 picnic sites, employee house, and comfort station (6 toilet facilities) Relocate leachfield and remove portable toilet	
	35	<b>DINGMANS CAMPGROUND (Private Concession Development)</b> Continue concessioner-operated family campground; increase number of sites (no seasonal campsites) Upgrade 200-car parking area, 2 bathhouses, 2 comfort stations (10 toilet facilities with utilities), trailer dump station, open playfield, and fisherman/canoe launch; provide additional facilities as necessary	
	36	<b>PENNSYLVANIA OISTRICT OFFICE</b> Relocate north district maintenance activity to Zimmerman farm Remodel interior of district ranger station Upgrade 10-car parking area and entrance road Construct firing range (Skys Edge)	
	37	<b>DINGMANS LAUNCH (Private Concession Development)</b> Construct 3 fisherman/canoe launches; upgrade canoe put-in and entrance road Expand 110-car/boat trailer parking area to 150 cars/boat trailers Replace 2 vault toilets with 10 toilet facilities (with utilities) Construct visitor contact station and 50 picnic sites Provide food service concession and equipment rentals	
	38	<b>DRY BRDOK</b> Construct canoe put-in, 15-car parking area, and 1 toilet facility	
	39	<b>ZIMMERMAN FARM</b> Construct north district maintenance facility	
	40	<b>RAYMONDSKILL FALLS</b> Maintain 20-car parking area for trailhead use, comfort station, and 3 picnic sites Encourage concession tourist gift shop and general sales Upgrade hiking trails	
	41	<b>SHANNA HOUSE</b> Encourage concession-operated restaurant and private rehabilitation for lodging Upgrade and expand 10-car parking area to 50 cars Upgrade utilities Provide bicycle rentals	
	42	<b>INDIAN PDINT</b> Construct canoe put-in and 10-car parking area	
	43	<b>TOCKS AIRPARK</b> Maintain open playfield; improve 20-car parking area	
	44	<b>CLIFFPARK</b> Continue privately operated golf course	
	45	<b>FECHTER POND</b> Construct entrance road, open playfield, 20 picnic sites, 30-car parking area, and 2 toilet facilities (with utilities) Encourage privately developed ice-skate rental, warming hut, and food service	
	46	<b>LAPAWANSA NRA ENTRANCE (US 209 North)</b> Construct visitor contact station (with 3 toilet facilities and utilities) and 40-car parking area	
	47	<b>MILFORD BEACH</b> Maintain open playfield, swim beach, picnic shelter, and employee house Develop concession food service and canoe/boat rental Upgrade and expand 20-site picnic area to 200 sites, and 100-car/boat trailer and 6-bus parking area to 500 cars/boat trailers and 10 buses Convert 2 motorboat ramps to fisherman/canoe launches Replace comfort station with 10 toilet facilities (with utilities); construct beachhouse with 10 toilet facilities (with utilities); and remove 4 portable toilets Relocate entrance road	
	48	<b>ROBERTS LANE</b> Construct canoe put-in and 5-car parking area	
	49	<b>PEIRCE HOUSE</b> Upgrade 2-car parking area to 8 cars Upgrade water and septic systems Encourage private development of bed-and-breakfast facility	

NEW JERSEY

- 50
- WEYGAOT

Construct visitor contact station (with 12 toilet facilities), 125-car/10-bus parking area, and 25 picnic sites  
Upgrade utilities  
Provide concession food service  
Replace and expand south district maintenance area and ranger station; replace employee house

- 51
- NEW JERSEY REST AREA

Continue state-operated truck pullout

- 52
- KITTATINNY POINT

Maintain scenic overlook and 100-car/15-bus parking area  
Remodel visitor contact station as picnic shelter, with 10 toilet facilities and visitor contact wayside  
Upgrade and expand 20-site picnic area to 50 sites, construct additional picnic shelter (2 total) and 4 toilet facilities (with utilities); remove 2 portable toilets  
Upgrade 2 motorboat ramps; construct 75-car/boat trailer parking area and access road  
Provide concession food service

- 53
- OUNFIELO CREEK

Maintain trailhead parking for 50 cars/2 buses  
Construct 6 toilet facilities (with water)

- 54
- WORTHINGTON STATE FOREST

Continue use of state-operated 80 family campsites, amphitheater, and fisherman/canoe launch

- 55
- COPPER MINE INN (Private Concession Oevelopment)

Rehabilitate privately operated restaurant and develop lodging  
Convert existing fisherman/canoe launch to motorboat ramp  
Upgrade and expand 100-car/boat trailer parking area to 200 cars/boat trailers; upgrade entrance road and utilities  
Provide bicycle concession

- 56
- OIMMICKS LAUNCH (Private Concession Oevelopment)

Upgrade access and construct canoe put-in, ferryboat landing, swim beach, 10-site picnic area, 25-car parking area, and 2 toilet facilities

- 57
- PAHAOUARRY COPPER MINES

Upgrade and expand 12-car parking area to 25 cars  
Maintain 3-bus parking area  
Install 3 toilet facilities (with water)  
Encourage mine tour concession

- 58
- POXONO

Maintain fisherman/canoe launch and 6-car/boat trailer parking area  
Replace portable toilets with 1 toilet facility (with water)

- 59
- OEPEW RECREATION SITE

Maintain open playfield and fisherman/canoe launch  
Construct 6 toilet facilities (with utilities) and picnic shelter  
Upgrade and expand 12-site picnic area to 50 sites and 20-car parking area to 75 cars/2 buses  
Upgrade access and circulation roads

- 60
- MOHICAN OUTDOOR RESOURCE CENTER

Continue privately operated camp, lodging, 45-car/2-bus parking area, and comfort station  
Upgrade access road

- 61
- VAN CAMPENS GLEN

Lower Area Upgrade and expand 6-site picnic area to 15 sites and 10-car parking area to 25 cars; replace portable toilet with 3 toilet facilities (with utilities)  
Upper Area Relocate 12-car parking area; rehabilitate entrance road

- 62
- HAMILTON

Upgrade and expand 14 canoe campsites (6 persons/site) to 30 sites  
Install 4 additional toilet facilities — 6 total (with water)

- 63
- WATERGATE

Maintain open-air concert area (capacity 250)  
Upgrade and expand 12-site picnic area to 50 sites and 30-car parking area to 100 cars/3 buses  
Replace 4 portable toilets with 10 toilet facilities (with utilities)  
Provide concession food service

- 64
- MILLBROOK VILLAGE

Maintain living history complex; incorporate additional structures as appropriate  
Construct visitor information contact point, cooperative association food service and gift sales, and central water and septic systems  
Maintain 6 picnic sites  
Relocate 25-car/2-bus parking area and expand to 100 cars/2 buses  
Replace 4 portable toilets with 8 toilet facilities (with utilities)  
Relocate employee quarters to Van Campen house

- 65
- RIVERS BENO

Maintain 5 group campsites (40 persons/site), open playfield, and canoe put-in  
Develop 10-car/10-bus parking area  
Replace vault toilets with 10 toilet facilities (with utilities)  
Construct amphitheater  
Upgrade access road

- 66
- STEVENS POINT

Construct canoe put-in and 5-car parking area

- 67
- PETERS

Upgrade and expand 18 canoe campsites (6 persons/site) to 35 sites  
Install 6 additional toilet facilities — 7 total (with water)

- 68
- SMITH FERRY BEACH (Private Concession Oevelopment)

Construct swim beach, 250-car/boat trailer and 4-bus parking area, 200 picnic sites, fisherman/canoe launch, beachhouse (with 12 toilet facilities and utilities), open playfields, and entrance roads  
Provide food service and bicycle rental

- 69
- BUCK

Construct fisherman/canoe launch, 10-car/boat trailer parking area, and 1 toilet facility

- 70
- BLUE MOUNTAIN LAKES (Private Concession Oevelopment)

Construct 50 picnic sites, 70-car day parking area, 16 toilet facilities, and 100 family campsites

- 71
- LONG PINE LAKE (Private Concession Oevelopment)

Oevelop overnight lodging and 250 family campsites, with food service, 100 picnic sites, swim beach, horse/bicycle rental, 300-car/3-bus parking area, and 25 toilet facilities (with water)  
Rehabilitate structures and upgrade utilities; provide trailer dump station

- 72
- CRATER LAKE

Expand 10-car trailhead parking area to 20 cars; provide 50 backcountry campsites and 3 toilet facilities (with water)

- 73
- FORT JOHN

Upgrade canoe put-in to fisherman/canoe launch  
Upgrade and expand 5-car parking area to 20 cars/boat trailers  
Construct 1 toilet facility

- 74
- FLATBROOK VALLEY OVERLOOK

Construct 10-car parking area

- 75
- BUTTERMILK FALLS

Upgrade and expand 15-car parking area to 25 cars  
Provide 5 picnic sites and 1 toilet facility  
Upgrade access road

- 76
- WALPACK INN

Continue privately operated restaurant

- 77
- NEW JERSEY OISTRICT OFFICE

Remodel interior of Jacob Roe house  
Establish visitor contact point  
Upgrade parking

- 78
- WALPACK VALLEY ENVIRONMENTAL EOUCATION CENTER

Continue privately operated center  
Upgrade access and circulation roads  
Expand parking area to accommodate 3 buses  
Upgrade water and sewer systems

- 79
- WALPACK CENTER/FLATBROOK VALLEY (Private Concession Oevelopment)

Encourage private development of village with new construction for lodging, food service, and recreation facilities (golf, tennis, swimming, horseback riding)  
Retain post office

- 80
- THUNOER MOUNTAIN (Private Concession Oevelopment)

Remove structures  
Construct 50 picnic sites, 75-car parking area, 100 family campsites, open playfield, and 16 toilet facilities (with utilities); provide food service and horseback-riding concession  
Upgrade access road

- 81
- PETERS VALLEY (Private Concession Oevelopment)

Continue privately operated craft village, expand commercial use; provide food service  
Maintain visitor contact station, crafts store, and 6 picnic sites  
Upgrade and expand 40-car/2-bus parking area to 85 cars/2 buses  
Replace 4 portable toilets with 6 toilet facilities (with utilities)  
Construct central water and sewer systems and storage  
Improve and expand pedestrian access system

- 82
- SANOYSTON BEACH

Construct swim beach, beachhouse with 10 toilet facilities, comfort station with 10 toilet facilities (with utilities), 450-car/10-bus parking area, 200 picnic sites, open playfield, and canoe put-in  
Provide concession food service and canoe/boat rental

- 83
- KETTLE HOLES CAMPGROUND (Private Concession Oevelopment)

Develop 200-site family campground, with amphitheater, food and camper services, and 20 toilet facilities

- 84
- SANOYSTON CANOE CAMPSITES

Expand 8 canoe campsites (4 persons/site) to 20 sites  
Install 3 additional toilet facilities — 4 total (with water)

- 85
- SUSSEX PONO

Continue privately operated play field and portable toilet

- 86
- NAMANOCK

Construct fisherman/canoe launch, 20-car/boat trailer parking area, and 1 toilet facility (with water)

- 87
- OLO MINE ROAO YOUTH HOSTEL

Expand youth hostel  
Upgrade entrance road

- 88
- MINISINK

Construct canoe put-in and 5-car parking area

- 89
- WHITE BROOK

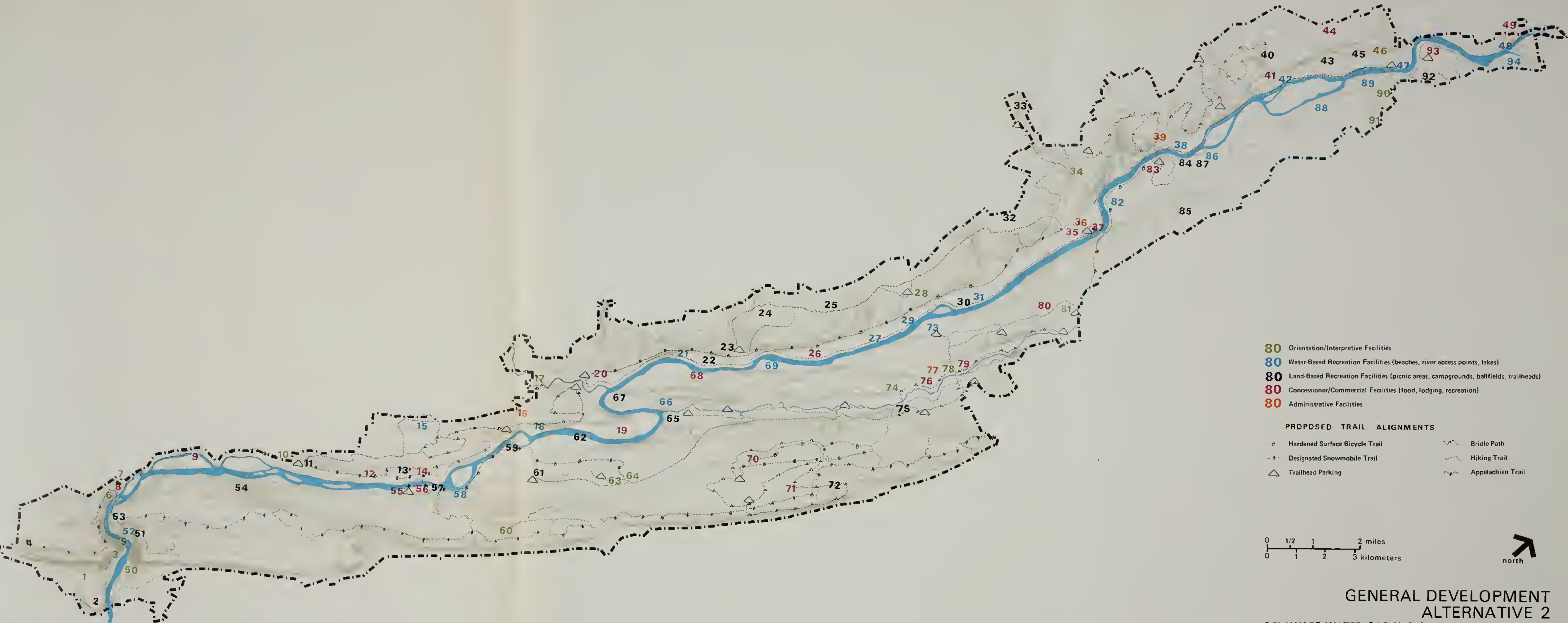
Construct canoe put-in and 5-car parking area  
Upgrade entrance road

- 90
- US 206 NRA ENTRANCE

Construct visitor contact/information kiosk

- 91
- NELOON-ROBERTS SCHOOLHOUSE

Maintain visitor contact station (by others) and 2 toilet facilities (with utilities)  
Upgrade and expand parking area to 20 cars



- 80 Orientation/Interpretive Facilities
- 80 Water-Based Recreation Facilities (beaches, river access points, lakes)
- 80 Land-Based Recreation Facilities (picnic areas, campgrounds, ballfields, trailheads)
- 80 Concessioner/Commercial Facilities (food, lodging, recreation)
- 80 Administrative Facilities

#### PROPOSED TRAIL ALIGNMENTS

- Hardened Surface Bicycle Trail
- Designated Snowmobile Trail
- Trailhead Parking
- Bridle Path
- Hiking Trail
- Appalachian Trail

0 1/2 1 2 miles  
0 1 2 3 kilometers



## GENERAL DEVELOPMENT ALTERNATIVE 2

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

Table 11: Summary of Facilities  
Alternative 2

<u>Type of Facility</u>	<u>National Park Service</u>	<u>Private Development</u>	<u>Total</u>
Campsites			
Backcountry	75	0	75
Canoe	130	0	130
Family	0	800	800
Group	9	0	9
Parking Spaces			
Automobile	2,727	2,765	5,492
Bus	75	26	101
Picnic Tables	903	1,170	2,073
Playfields	10	11	21
River Access*			
Canoe put-in	12	2	14
Launch	10	8	18
Ramp	2	3	5
Swim Beaches	3	5	8
Toilet Facilities**	213	177	390
Visitor Information			
Point	4	0	4
Station	5	2	7

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Note: Table 15 in the "Environmental Consequences" section compares facilities proposed under each alternative.

\* Canoe put-in--no ramp, parking spaces, trail, information wayside, trash receptacle; fisherman/canoe launch--stabilized concrete ladder, car/trailer parking spaces, comfort station, trash receptacle, information; motorboat ramp--concrete ramp, car/trailer parking spaces, comfort station, picnic area, information (personal services, exhibits).

\*\*The type of facility--comfort station, Clivus Multrum, or pit toilet--would be decided for each area during the development concept planning phase.

Existing NPS development sites would continue to be maintained by the Park Service; new development would be in areas where resources are sensitive, such as for backcountry and canoe camping. Major development at some 14 sites could be undertaken by the private sector, which would operate these areas under concession contracts with the Park Service. The private sector would provide all of the family campsites within the recreation area; more than half of the swim beaches, picnic tables, and playfields; half of the car parking spaces; and a quarter of the bus parking spaces.

The two major NPS developed sites would be at Milford, where existing facilities would be improved, and Sandyston, where new facilities would be constructed. Privately developed sites along the river would include Dimmicks, Cold Spring, Eshback, Smith Ferry, and Millville; sites away from the river would include Long Pine Lake, Walpack Center/Flatbrook Valley, and Peters Valley. Federal subsidies through the National Park Service would no longer be available to cooperating associations, and their economic viability would determine their continued existence.

Smaller scale recreation sites, where facilities would be minimal (such as Stucki Pond, Miller-Hagen, and Buttermilk Falls), would be developed by the Park Service. However, sites that would be tied in with major private developments, for example, Blue Mountain Lakes and Thunder Mountain, would be privately developed.

The private sector would be asked to provide three boat ramps and eight fisherman/canoe launches on the Delaware River. Launch areas that have NPS facilities already in place, such as Poxono and Bushkill, would remain under NPS administration. Canoe put-ins would be informal, with canoeists having to carry their craft from an informal parking area to the river.

Facilities for operations and maintenance would generally remain the same as present conditions. The Park Service would construct a new maintenance facility at the Zimmerman farm to serve the northern end of the recreation area. Some administrative facilities might have to be eventually expanded to accommodate more administrative and law enforcement personnel.

### Access and Circulation

Charter bus service from metropolitan areas directly into the national recreation area would be encouraged and promoted. In addition the National Park Service would encourage the private sector to explore the potential for railroads to bring visitors to the recreation area.

An integrated shuttle bus system, with loops on each side of the river, would be provided by concession operators to various developments within the national recreation area. The loop in Pennsylvania would connect various resorts and lodges outside the recreation area to Smithfield, Cold Spring, Hidden Lake, and several NPS-administered sites. There would



# Legend

PAVED UNPAVED

- Open to Public Year-round
- Open to Seasonal Use
- Administrative
- Permanently Closed
- Entrance Closure
- Recreation Area Boundary

0 1/2 1 2 Miles  
0 1 2 3 Kilometers

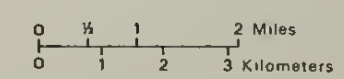


**ROADS ALTERNATIVE 2**  
DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

620 | 20040A  
DSC | FEB 86



- Legend
- | PAVED | UNPAVED |                           |
|-------|---------|---------------------------|
|       |         | Open to Public Year-round |
|       |         | Open to Seasonal Use      |
|       |         | Administrative            |
|       |         | Permanently Closed        |
|       |         | Entrance Closure          |
|       |         | Recreation Area Boundary  |



# ROADS ALTERNATIVE 2

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

also be the potential to connect scattered sites such as Slateford Farm, Eshback beach and launch, Dingmans Falls, Dingmans launch, and Shanna House. By using the Ferry Landing, a shuttle bus could provide access to developed sites on the New Jersey side of the river. The loop in New Jersey would connect Copper Mine Inn, Dimmicks launch, Watergate, Millbrook Village, Smith Ferry beach, Walpack Inn, Van Campen Inn, Walpack Center, and Peters Valley. Other developed sites in the northern portion of the area such as Sandyston beach, the Kettle Holes, and Millville beach could also be connected. A transportation study would be prepared to determine the economic feasibility of such a shuttle system in terms of equipment costs, capacities, parking requirements, operating schedules, visitor needs, resource protection concerns, and operational responsibility. In addition, the study could look at various options for decreasing private automobile use on those roads used by shuttle buses.

Roads. Over 250 miles of road would be open for public use (approximately 125 miles in each state). Roads open to seasonal use would total 25 miles (15 miles in Pennsylvania and 10 miles in New Jersey). About 50 miles of road would be used only for administrative purposes (25 miles in each state). Overall, some 55 miles of road would be closed permanently (35 miles in Pennsylvania and nearly 20 miles in New Jersey). Under alternative 2 a total of five access points into the national recreation area would be closed (three in Pennsylvania and two in New Jersey).

Trails. Trail development would probably be less extensive under this alternative because the Park Service would not have the funds to undertake development and maintenance activities. Private enterprise would be relied upon to develop and maintain trails outside their development areas. Trails provided by private enterprises within their development areas would be oriented to their clientele and would probably include horseback riding, skiing, and snowmobile trails.

To support an extended trail network, the National Park Service would encourage private organizations and interest groups to build and maintain trails. The major private beach developments proposed in alternative 2 could be connected by a riverside hiking/bicycling trail on the Pennsylvania side as well as the New Jersey side. On the New Jersey side the potential private development in Flatbrook Valley would lend itself particularly well to all types of trail development. The upland areas around Blue Mountain and Long Pine lakes could also be conveniently linked by a trail network. The development at the north end in New Jersey around Millville could be connected by trails to developments farther south as well as to park areas across the bridge in Pennsylvania.



## AFFECTED ENVIRONMENT

This section briefly describes the area that would be affected by implementation of either the proposed plan or the alternatives. The regional setting of Delaware Water Gap National Recreation Area is described first, followed by an overview of the national recreation area itself. The land base, natural and cultural resources, scenic landscape, facilities, visitor use, and park operations are summarized.

## REGIONAL SETTING

The landscape of the Delaware Water Gap National Recreation Area is characterized by long, narrow, parallel valleys and ridges of the Ridge and Valley province and by enlarged stream valleys and rounded highlands of the Appalachian Plateaus province. The region consists of seven counties--Pike, Monroe, and Northampton in Pennsylvania; Warren and Sussex in New Jersey; and Orange and Sullivan in New York. Since the mid-19th century, the Delaware Valley has been a popular recreation spot for people from densely populated urban areas. In recent years, second homes and resort developments have increased dramatically in number as a result of this popularity.

## LOCATION AND ACCESS

Nearly 30 million people reside within a 100-mile radius (or a 2½ hour drive) of the national recreation area. Access is provided by I-84 from Scranton to New York and Connecticut, I-80 from New York to points west, I-78 from Newark to Allentown and points west, and the north-south Pennsylvania Turnpike. These routes carry the bulk of traffic to and through the region. The regional and local road system that more directly affects the national recreation area consists of US Highways 209, 206, 6, and 46; Pennsylvania Highways 33 and 611; and more than a dozen state and local roads.

Commercial bus and rail transportation are limited. Bus service consists of regular runs between New York City and nearby communities; however there is no service available between these communities and the national recreation area. The only passenger train service available is the commuting run between Hoboken, New Jersey, and Port Jervis, New York.

## LAND USE/SOCIOECONOMIC CHARACTERISTICS

Today 90 percent of the seven-county region is open space. Less than half of the open space is used for agriculture, varying from 2.5 percent in Pike County to 45 percent in Northampton County. Most of the land is used for residential development, a significant portion of which is seasonal housing or second homes. The major commercial developments are located within the region's population centers.

The 1980 population of the region was 853,528, which represents a gain of 20.1 percent from 1970; compared to a gain of 17.8 percent from 1960 to 1970. The average population density is 197 persons per square mile, so the region retains its rural identity. County variations extend from a high of 594 persons/square mile in Northampton County to a low of 32 in Pike County.

The rural setting, however, is slowly being changed through population growth and subdivision development. These trends are affecting varying amounts of undeveloped land in each of the seven counties.

Both Monroe and Pike counties in Pennsylvania are growing in permanent and seasonal population as well as permanent and second-homes. Both counties, for example, saw approximately a 90 percent growth in permanent housing, and seasonal housing increased 52 percent for Monroe and 38 percent for Pike. In Monroe County, second-home developments and time-share condominium projects are growth factors, while in Pike County, subdivisions and second homes are major population contributors.

Warren and Sussex counties are located in an area of New Jersey whose economy has historically been based on agriculture and somewhat on recreation. The agricultural acreage is shrinking as more land is being used for recreation facilities and residential development. Both Sussex and Warren have large concentrations of their populations spreading out either from existing urban areas, such as Hackettstown or Phillipsburg, or from areas of easy access, such as Netcong or Allamuchy along I-80.

New York's Orange and Sullivan counties are still experiencing a population increase, which was substantially stronger during the first half of the 1970s. A major portion of the growth is represented by new permanent residences, with second-home and recreation developments accounting for a smaller portion of the increase.

## RECREATION

Resort hotels capitalized on the region's picturesque quality from the mid-19th century until World War II. Since the war, hotels have declined in popularity, and new patterns of recreation, such as privately owned cottages and condominiums, have replaced the old. Today the region attracts those who enjoy sight-seeing, hunting, fishing, canoeing, hiking, cross-country skiing, snowmobiling, and other outdoor activities in an attractive rural setting.

Within 100 miles of Delaware Water Gap National Recreation Area are numerous state forests, parks, natural areas, and game lands, as well as an abundance of private or semiprivate recreation facilities. The Catskill Mountains of New York and the Pocono Mountains of Pennsylvania offer facilities for camping, swimming, boating, hunting, and fishing. The New Jersey and Long Island coasts provide beaches, boating, and fishing. Freshwater recreational opportunities are provided at Lakes Wallenpaupack and Hopatcong, as well as Greenwood, Prompton, and Beltzville. The Hudson and Delaware rivers provide scenic corridors that are used for day trips by residents of the major urban centers.

Recreational opportunities in the vicinity of Delaware Water Gap vary considerably from Pennsylvania to New Jersey. In Pennsylvania recreation is characterized by private resorts, camps, and commercial attractions that appeal to every economic class. In New Jersey there are a few full-service resorts, but they are not as highly developed as those

in Pennsylvania. Instead, state parks and forests, second-home developments surrounding private lakes, and school-operated environmental education centers predominate. The setting is much more rural. Camping, fishing, hunting, hiking, and picnicking are the major activities in New Jersey, as opposed to the organized, resort-type activities prevalent in Pennsylvania. Five Corps of Engineers dams in the region provide flood control, with recreation as a secondary function.

Camping is popular, as evidenced by the 90 or so public and commercial campgrounds (about 9,700 individual campsites) located within 30 miles of the national recreation area. Some 30 campgrounds (3,000 sites) lie within 10 miles of the recreation area. Some 4,800 sites are limited to tents and 2,500 to recreation vehicles (RVs); the remaining sites accommodate both tent and RV camping.

Public campgrounds in the 17 state parks and forests in the region are generally oriented to a back-to-nature experience, while commercial campgrounds tend to provide the sites and utility hookups required by RVs. Despite the variety and number of campgrounds in the region, not all of the diverse types of visitors to Delaware Water Gap are being accommodated. Many established campgrounds were developed to meet the needs of a particular clientele, and they cannot meet the needs of visitors with different lifestyles and cultural backgrounds.

In the past 30 years demands for outdoor recreational opportunities have increased because of marked changes in population, living patterns, mobility, disposable income, and leisure time. Anticipated future demand was analyzed in A Comprehensive Study of the Tocks Island Lake Project and Alternatives (Madigan-Praeger, and Conklin & Rossant 1975). Based on surveys and research, the following conclusions were reached:

There is a substantial shortage of recreation facilities compared with demand, particularly in the more urbanized areas of New Jersey and New York. Crowding at existing facilities bears an almost direct relationship to proximity to major population concentrations.

The public is finding alternatives to crowded beaches and mass attendance facilities. Those who appreciate hiking, wilderness camping, and more pastoral activities are much more sensitive to the deterioration of the quality of the experience that comes with overuse than are swimmers and picnickers. Also, the region's land resources may not be capable of handling the demand if such activities continue to gain in popularity.

The majority of the recreating population are still willing to tolerate crowds, and urban recreationists may actually prefer to be around people and to pursue common activities (such as swimming, picnicking, playing games, and conversing) in a natural setting rather than to have a completely foreign experience. Therefore, no level or pattern of facility construction will automatically distribute the crowds evenly; there will be places that will continue to be popular in spite of or perhaps because of congestion.

Swimming is the most popular outdoor recreational activity and the one with the greatest shortage in terms of supply.

Freshwater boating is severely restricted by the size of existing facilities, horsepower limitations on motors, and water quality; in many situations boating and swimming activities conflict, to the detriment of the quality of both experiences.

Although the quality of the experience would seem to be greater in more natural, less crowded conditions, the region's state forests and undeveloped park areas are underused.

The region will certainly change--the rapidity and degree depending on external pressures from New York City, Philadelphia, and surrounding suburban counties, as well as on the quality of regional planning and adherence to those plans. The probable increase in population density and use of agricultural land for other purposes will affect the rural setting of the area. Second homes, time-share condominiums, and resorts will continue to meet special recreational needs. Private industry and state governments will continue to play a major role in satisfying the demand for recreational opportunities. Delaware Water Gap National Recreation Area will help provide a broad physical base for outdoor recreational activities.

## DELAWARE WATER GAP NATIONAL RECREATION AREA

### LAND BASE

In 1962 Congress authorized a total of almost 72,000 acres (29,100 ha) of lands or interests to be acquired for Delaware Water Gap National Recreation Area. In 1965 Congress further authorized that boundary adjustments could be made (through unequal value land exchange as well as other means) by publication of an amended description in the Federal Register, provided that the new area would not exceed the original acreage (PL 89-158). Through such adjustments, the current authorized boundary (Federal Register, April 15, 1981) incorporates 69,629 acres (28,172 ha).

### NATURAL RESOURCES

The entire recreation area has been affected by man's presence, even though streams, meadows, and woodlands throughout the recreation area seem almost unaltered. Along the Delaware River, cultivated fields retain the rural character of an agricultural community of earlier years. The scenic qualities of the free-flowing Delaware River, the fertile and rural valley, and the forested ridges afford a pleasant environment for recreational activities.

#### Topographic Features

Two distinct landforms make up the scene: the Valley and Ridge physiographic province, including the river lowlands or alluvium-filled basins and the low parallel ridges of the valley, and the Appalachian Plateaus province, with its enlarged stream valleys and rounded highlands. The elevation of the valley varies from 300 to 400 feet above sea level, and the adjacent highlands rise an additional 600 to 1,000 feet.

In the northern two thirds of the national recreation area, the Delaware River flows along the eastern edge of a Devonian formation of Mahantango shale, which is dissected by streams flowing from the Pocono Plateau. Waterfalls are frequent features of these tributary streams. At the time the valley was freed from glacial ice, these streams tumbled over the edge of the plateau, but now they have cut their way back into that plateau and form picturesque gorges. Shale barrens occur along the rim and face of the Pocono escarpment. The southern third of the area has a more complex geology. At Walpack Bend, the river cuts through the hogback ridge, which is composed of Devonian Buttermilk Falls limestone, and then follows the southeastern edge of the Silurian Bossardsville limestone formation to where it cuts through the Shawangunk formation of the Kittatinny Mountains to form the water gap. The influence of the Neversink River and the limestone formations increase the productivity of the Delaware River significantly below Port Jervis.

The area was covered by ice during the last Wisconsin glaciation. The valley of the Delaware River and tributary streams are characterized by glaciofluvial deposits which comprise an outwash terrace. Kames and kame terraces occur intermittently at the base of the valley walls, which were formed as the ice front retreated north. Other glacial features include an area of sand dunes along the river south of Dingmans Ferry, drumlins near Bushkill, and kettle holes near Minisink Island. Valley deposits consist of coarse sands, gravels, and silt carried down by the ice and later by meltwaters on the glacial outwash. Weathering of the vertical valley walls north of Bushkill has produced along the lower slopes a mantle of colluvium that partially covers the glacial deposits on the valley floor.

### Water Resources

The 100-year floodplain of the Delaware River varies from 400 to 3,200 feet in width along the 35-mile stretch of river in the national recreation area and includes approximately 2,000 acres. The river has cut through alluvial flats, creating a long, narrow floodway. About two dozen islands are located in this stretch of river, all of them flat, alluvial, and subject to flooding. (The 100-year floodplain delineation of the Delaware River was prepared by Anderson-Nichols and Company, using flood hazard boundary maps. Where information was unavailable in New Jersey, elevations from the Pennsylvania side of the river were used.) Studies to delineate the 500-year floodplain have not been completed, so the extent of the 500-year floodplain area was determined from flood profiles of areas located on the river, directly above and below the national recreation area. Areas along the river prone to flash floods have been identified, and evacuation plans have been prepared for these areas.

In the national recreation area, the Delaware River marks the boundary of Pennsylvania and New Jersey. Tributary streams that drain the New Jersey ridges flow directly downhill into valley streams, creating a classic latticelike pattern known as trellis drainage. Streams on the Pennsylvania side form a treelike, or dendritic, drainage pattern.

The Delaware River Basin Commission indicated in its 1976 status report (DRBC 1976, 3) that the Delaware River and tributaries have good water quality. The river may be used for agricultural, industrial, and domestic purposes after treatment, for wildlife maintenance and propagation of game fish and other aquatic life, for spawning and passage of anadromous fish, and for primary recreation. Dams in the upper watershed, above the national recreation area's boundary, regulate riverflow within Delaware Water Gap.

The average annual streamflow is 5,874 cubic feet per second (cfs). Maximum flow occurred during the flood of 1955--250,000 cfs, while the minimum flow of 412 cfs was recorded in 1954. Releases from reservoirs and lakes in the upstream drainage maintain the flow at 1,750 cfs at the gauging station at Montague, New Jersey. The highest percentage of average annual flow occurs in April. The Delaware River in the national



- RECREATION AREA BOUNDARY
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



# TOPOGRAPHY AND FLOODPLAIN

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



**TOPOGRAPHY AND FLOODPLAIN**  
DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

recreation area has controlled flows; however, during periods of high water, the islands are closed to visitor use.

Two sources of groundwater are present in the national recreation area: water-bearing gravels at various depths yield small amounts from wells and springs; and sandstone outcrops on adjacent ridges yield moderate to good supplies of water from both springs and wells. There appears to be no large groundwater supply, but water is sufficient to meet demands of both residents and summer visitors. Potable water taken from groundwater sources requires the minimum treatment for disinfection under the Safe Drinking Water Act.

### Soils

The soils in Pennsylvania vary considerably from those in New Jersey. Soils in Pennsylvania are on shale, and they are unproductive, rocky, and shallow. Soils in New Jersey, except for Kittatinny Mountain, are on limestone, and they are very productive and deeper, but also very stony.

Soils in the national recreation area are most suitable for forest growth. The only large areas suitable for agriculture are the floodplains and alluvial flats of the Delaware River. The alluvial lands are classified by the U.S. Soil Conservation Service as prime farmlands. Currently, private individuals farm over 3,000 acres under special use permits with the National Park Service.

Throughout the area soils are generally loamy, fine grained, and rocky with high groundwater. These qualities result in severe limitations for on-site sewage disposal. Septic tanks and leachfields may not be feasible in many areas, and where feasible, construction costs will be high.

### Vegetation

The national recreation area lies within the Appalachian oak/hickory forest section of the eastern deciduous forest zone (Kuchler 1964). Vegetation in the national recreation area is characterized by over 1,100 species of plants. The differences in flora are related to slope, exposure, water, and disturbance. Riverbanks are covered by silver maple, river birch, American elm, and various willows, with understory herbaceous plants, most noticeably the exotic purple loosestrife.

Lowlands support riverbank trees where sufficient moisture and rich soil are present, and black walnut, butternut, and hickory predominate. In cultivated fields and pastures, the usual agricultural crops (corn), pasture grass, and clover dominate. Some softwoods have been planted adjacent to open fields.

Several islands were farmed, and this may account for the extensive stands of exotic species, such as Japanese knotweed and reed canary grass, which occur in several areas.

Slopes and upland forests are covered primarily with hardwoods--several varieties of oak and maple, along with yellow poplar, cherry, beech, and hickory. Upland abandoned fields have been invaded by gray birch, white pine, red cedar, and pitch pine, and they are productive wildlife areas, particularly for deer. A few scrub oak barrens appear on burned-over land with thin, poor, acid soils. Lowbush blueberries are abundant at higher elevations and in swampy areas.

Cliffs exhibit a specialized vegetation not often found in the Northeast. Because of rapid drainage and exposure to wind and sun, the cliff habitat is almost desertlike, with scrub oak, dwarf chinquapin oak, and prickly pear cactus. Mountain spleenwort and goatsrue are found on the crests, and rock-harlequin is abundant on ledges.

Talus slopes, the most inhospitable, rugged habitat of the area, may endure temperatures of 120°F in summer and temperatures far below freezing in winter. Lichens are about the only plants that can grow in this environment.

Ravine banks are usually moist and protected from excessive sunlight. They often exhibit strikingly different species on north and south slopes. Dominant trees on north-facing slopes are oak and hemlock, while white pines tend to be more abundant on south-facing slopes. The wet areas of both slopes are vegetated by mosses, lichens, liverworts, and ferns. Some virgin forest still exists because the steep slopes have prevented lumbering. The warming effect of ravine creeks causes much of the low vegetation to remain green throughout the winter.

### Wetlands

The U.S. Fish and Wildlife Service has inventoried wetlands in this area. In addition to the obvious rivers, streams, lakes, and ponds, many small marshes were identified. Marshes are transitions between open water and solid land. Within the recreation area, the full spectrum of open water, emergent, scrub/shrub, and forested marshes may be found. Numerous beaver impoundments provide waterfowl habitat.

### Fish and Wildlife

Delaware Water Gap National Recreation Area contains a variety of aquatic and upland habitats suited to wildlife, and the presence of a variety of wildlife is a major attraction of the national recreation area. In addition, NPS personnel are involved in various management programs that benefit wildlife.

Approximately 55 species of fish inhabit the Delaware River and the area's streams, lakes, and ponds. The Delaware River is the major recreation attraction, and recreational fishing is of considerable interest. Shad, sunfish, bass, perch, walleye, muskellunge, and trout are the most sought after species. Brook, rainbow, and brown trout are taken

primarily in the tributary streams. The Pennsylvania Fish Commission releases muskellunge in the Delaware River and stocks Bushkill, Little Bushkill, Brodhead, and Sawkill creeks. The New Jersey Division of Fish, Game, and Wildlife releases trout in the Big Flat Brook. The recreation area has one of the few streams in New Jersey where brook, brown, and rainbow trout are found naturally. Heavy fishing pressure occurs in the spring for shad in the river and for trout in the tributary streams. (See the annual "Aquatic Resources Report" and the "Natural Resource Management Plan" for more information.)

About 50 species of amphibians and reptiles inhabit the national recreation area.

Over 250 species of birds are known to occur in Delaware Water Gap. The majority of these nest in the area, but others are present only during migrations or during the winter. The valley is an important segment of the Atlantic flyway for migratory birds and provides cover and space for breeding and nesting of these birds.

Approximately 40 species of mammals have been recorded in recent years, ranging from white-tailed deer and black bears to common small species (foxes, squirrels, rabbits, mice, raccoons).

Hunting and fishing are permitted by PL 89-158 (sec. 6) on lands and waters within Delaware Water Gap National Recreation Area, in accordance with the applicable state and federal laws and regulations. PL 89-158 allows zones and periods to be established when no hunting will be permitted for reasons of public safety, wildlife management, administration, or public use and enjoyment not compatible with hunting. Areas may also be provided for intensive fish and wildlife management, including public hunting and fishing. Hunting, fishing, and trapping regulations are to be issued by the states after consultation with appropriate officials.

White-tailed deer are the major big game, and black bears are of secondary importance. Small game include turkey, grouse, woodcock, fox, gray squirrel, cottontail rabbit, raccoon, and various species of waterfowl. Pheasants are stocked by the states, and New Jersey has introduced bobcats to the area. In the fall and winter, hunting for upland game birds, migratory waterfowl, white-tailed deer, and several small species of mammals becomes an important recreational activity. The recreation area has large populations of both deer and turkey, which are major attractions for sight-seers as well as hunters.

#### Threatened or Endangered Species

Table 12 identifies animal species that have been identified as threatened or endangered by the U.S. Fish and Wildlife Service and the states of New Jersey and Pennsylvania. Threatened or endangered plant species also exist in the area. Each site proposed for development will be

surveyed for the presence of threatened or endangered species, or their critical habitat, before any construction occurs.

Vegetation. The small whorled pogonia (Isotria medioloides) is currently listed by the U.S. Fish and Wildlife Service as endangered throughout its range in the United States (Federal Register, September 10, 1982). Although a specimen of the small whorled pogonia has not been recorded in the area, critical habitat does exist. One other plant, the spreading globeflower (Trollius laxus var. laxus) is under review to determine its status. New Jersey maintains a separate list of endangered and rare plants by county; approximately 64 species on the state list may be in the national recreation area. Twenty plant species included on the Pennsylvania list of plants of special concern may be found within the national recreation area.

Fish and Wildlife. The portion of the Delaware River within the national recreation area is at the upper end of the range for the shortnose sturgeon (Acipenser brevirostrum), but this species is not known to reside in the area.

The Delaware River and the Hudson River are the only rivers in New Jersey that have American shad (Alosa sapidissima) populations. New Jersey has designated the shad as threatened because they become endangered if conditions deteriorate. The Delaware River continues to support active shad fishing and has been able to maintain healthy population levels. The same situation applies for the brook trout (Salvelinus fontinalis).

The timber rattlesnake (Crotalus horridus horridus) and the bog turtle (Clemmys muhlenbergi) are on the New Jersey list of endangered and rare wildlife species. The bald eagle (Haliaeetus leucocephalus) is not known to nest in the area; however, the Delaware Valley provides critical wintering habitat. Winter populations have continued to expand since 1980. As surrounding states continue hatching programs to expand eagle populations, it is conceivable the eagles will be nesting in the area in the next five to 10 years. The peregrine falcon (Falco peregrinus) has been sighted during migration, but it is not known to nest in the area. The Delaware Valley is within the range of the endangered Indiana bat (Myotis sodalis), but again it is not known to be in the recreation area.

Table 12: Threatened or Endangered Wildlife Species  
Delaware Water Gap National Recreation Area

<u>Common Name (Scientific Name)</u>	<u>Federal</u>	<u>New Jersey</u>	<u>Pennsylvania</u>
<u>Birds</u>			
Pied-billed grebe ( <i>Podilymbus podiceps</i> )		E-b	
Cooper's hawk ( <i>Accipter cooperii</i> )		E	C
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	E	E	E
Osprey ( <i>Pandion haliaetus</i> )	E	E	E
Peregrine falcon ( <i>Falco peregrinus</i> )	E	E	E
Upland sandpiper ( <i>Bartramia longicauda</i> )		E	T
Short-eared owl ( <i>Asio flammeus</i> )		E-b	E
Cliff swallow ( <i>Petrochelidon pyrrhonata</i> )		E-b	
Henslow's sparrow ( <i>Passerherbuluo henslowii</i> )		E	
Vesper sparrow ( <i>Poocetes gramineus</i> )		E-b	C
Red-shouldered hawk ( <i>Buteo lineatus</i> )		T	C
Merlin ( <i>Falco columbarius</i> )		T	
Great blue heron ( <i>Ardea herodias</i> )		T	C
Yellow-crowned night heron ( <i>Nyctanassa violacea</i> )		T	
Barred owl ( <i>Strix varia</i> )		T	
Red-headed woodpecker ( <i>Melanerpes erythrocephalus</i> )		T	C
Bobolink ( <i>Dolichonyx oryzivarous</i> )		T	U
Savannah sparrow ( <i>Passerculus sandwichensis</i> )		T	
Grasshopper sparrow ( <i>Ammodramus savannarum</i> )		T	C
King rail ( <i>Railus elegans</i> )			E
Bewick's wren ( <i>Thyromanes bewickii</i> )			E
Least bittern ( <i>Ixobrychus exilis</i> )			T
American bittern ( <i>Botaurus lentiginosus</i> )			T
Black tern ( <i>Childonias niger</i> )			T
Henslow's sparrow ( <i>Ammodramus henslowii</i> )			T
<u>Mammals</u>			
Indiana bat ( <i>Myotis sodalis</i> )	E		E
<u>Amphibians</u>			
Long-tailed salamander ( <i>Eurycea longicauda longicauda</i> )		T	
<u>Reptiles</u>			
Bog turtle ( <i>Clemmys muhlenbergi</i> )		E	E
Timber rattlesnake ( <i>Crotalus horridus horridus</i> )		E	
<u>Fish</u>			
Shortnose sturgeon ( <i>Acipenser brevirostrum</i> )	E	E	E
American shad ( <i>Alosa sapidissima</i> )		T	
Brook trout ( <i>Salvelinus fontinalis</i> )		T	

\*Status:

- E - Endangered species are those whose prospects for survival are in immediate danger because of a loss or change of habitat, over-exploitation, predation, competition, or disease. Immediate assistance is needed to prevent extinction.
- T - Threatened species are those who may become endangered if conditions surrounding the species begin or continue to deteriorate.
- b - Only the breeding population is endangered.
- C - Species of concern.
- U - Status undetermined.

## Air Quality

The overlooks, scenic vistas, and clear air are some of Delaware Water Gap's most appealing qualities. The area is currently classified as a nonattainment area for photochemical oxidants (in excess of standards) and as an attainment area for other pollutants, according to the Environmental Protection Agency's regional office in Philadelphia.

Under the Clean Air Act, as amended in August 1977, Delaware Water Gap National Recreation Area is classified as a class II clean air area. This category allows some deterioration of air quality, but the national ambient air quality standards cannot be exceeded. The national recreation area may only be redesignated as a class I clean air area by the states of Pennsylvania and New Jersey. Should such a redesignation occur, following health, environmental, economic, social, and energy studies and public hearings, very limited air quality deterioration would be allowed, and the superintendent would have an affirmative responsibility to protect the area's air quality related values--visibility, plants, animals, and cultural resources.

## CULTURAL RESOURCES

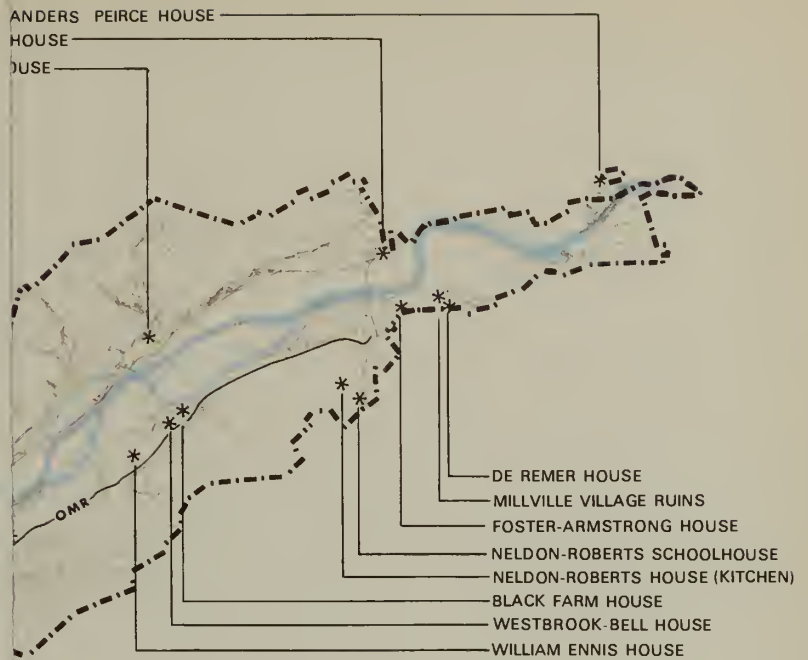
The cultural history of the Delaware River valley begins when nomadic Paleo-Indians appeared in the area at the end of the last period of glaciation, 12,000 to 14,000 years ago. They were later followed by bands of hunters and gatherers (Archaic Indians) who occupied summer and winter camps, fished for spawning shad, and collected roots and vegetables.

Following these first inhabitants, the presence of Indians has been documented during four periods--Transitional, and Early, Middle, and Late Woodland. These inhabitants occupied the upper valley in turn until the period of European contact in the mid 1600s. Indians in the Transitional period were hunters and gatherers, settling only temporarily and depending heavily on the river for their fare. The Late Woodland Indians lived a sedentary village life and, compared to earlier groups, depended more on intensive farming, less on hunting, and about the same as previous groups on gathering.

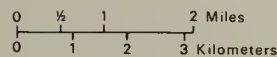
Collectively, these Indians were known as the Lenni Lenape (called Delaware by the Europeans), a branch of the Algonquian-speaking people. The particular people that inhabited the valley area were known as the Munsee, Minsi, or Minisink, and their main village was located near Minisink Island. (The Delaware River valley land occupied by the Minisink Indians at the time of European contact became known as Minisink country.) At the turn of the 18th century, the Minisink invited a considerable body of dispossessed Shawnee Indians to settle in the area. The two Indian settlements dominated the valley, largely uninfluenced by outsiders until the 1740s.

# ARCHEOLOGICAL SITES

- FAUCETT
- HARRY'S FARM
- MILLER FIELD
- BRODHEAD-HELLER
- ZIMMERMAN
- PAHAOUARRY
- PETERS
- ROSENKRANS
- BEISLER
- MINISINK
- ZIERDT
- SHAWNEE-MINISINK



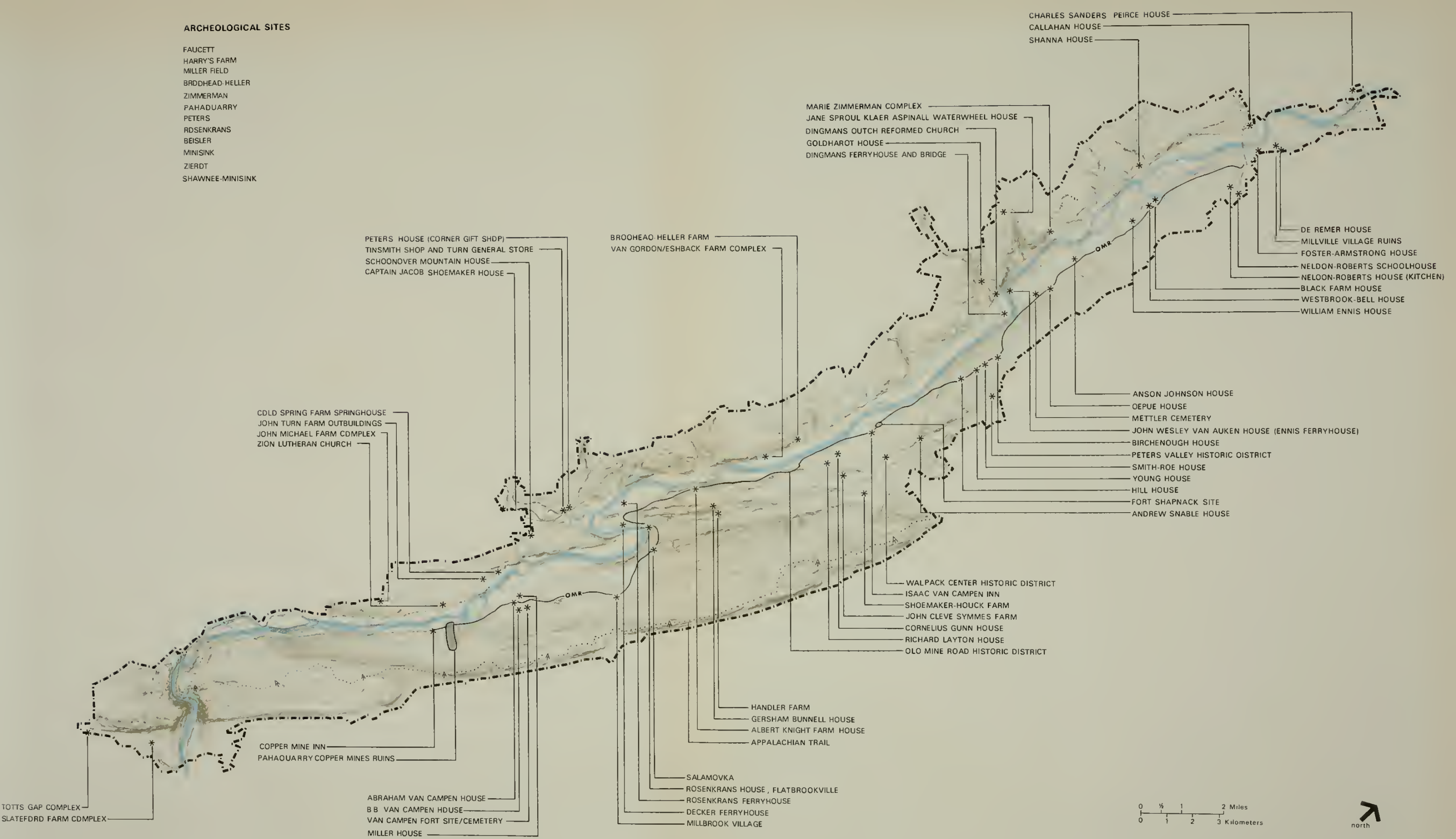
- ANDERS PEIRCE HOUSE
- HOUSE
- HOUSE
- DE REMER HOUSE
- MILLVILLE VILLAGE RUINS
- FOSTER-ARMSTRONG HOUSE
- NELDON-ROBERTS SCHOOLHOUSE
- NELDON-ROBERTS HOUSE (KITCHEN)
- BLACK FARM HOUSE
- WESTBROOK-BELL HOUSE
- WILLIAM ENNIS HOUSE
- ANSON JOHNSON HOUSE
- DEPUE HOUSE
- METTLER CEMETERY
- JOHN WESLEY VAN AUKEN HOUSE (ENNIS FERRYHOUSE)
- BIRCHENOUGH HOUSE
- PETERS VALLEY HISTORIC DISTRICT
- SMITH-ROE HOUSE
- YOUNG HOUSE
- HILL HOUSE
- FORT SHAPNACK SITE
- ANDREW SNABLE HOUSE



## CULTURAL RESOURCES DELAWARE WATER GAP NATIONAL RECREATION AREA UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

ARCHEOLOGICAL SITES

- FAUCETT
- HARRY'S FARM
- MILLER FIELD
- BRODHEAD-HELLER
- ZIMMERMAN
- PAHADUARRY
- PETERS
- ROSENKRANS
- BEISLER
- MINISINK
- ZIERDT
- SHAWNEE-MINISINK



CULTURAL RESOURCES  
DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

The region's first contact with Europeans resulted indirectly from the 1609 voyage of Henry Hudson, who saw fur trade potential wherever he sailed. Dutch merchants followed, seeking authority to establish colonies, although settlement of the area did not begin until the end of the century. Between 1697 and 1704 a number of patents in upper Minisink country were issued by the province of New York to Hudson River Dutch, French Huguenots, and Palatine Germans. When William Penn offered land on easy terms, along with religious and political freedom, he set in motion immigration from the British Isles and Europe. From a focal point in Philadelphia, settlements gradually spread out. Purchases from the Lenape chiefs between 1682 and 1732 cleared southeastern Pennsylvania for European settlement and set the stage for opening the Delaware Valley. By 1755 an estimated 800 settlers lived in the valley, half of them gathered in clusters opposite Mashipacong Island, opposite Minisink Island, and Walpack Bend. These settlers had pushed the Indians off their land, and they were periodically raided during the French and Indian War.

Except for Joseph Brant's raids and a minor engagement at Raymondskill, the American Revolution bypassed the upper valley, although the valley was a conveniently located route around British units in New Jersey. On the eve of the battle of Trenton in December 1776 American General Horatio Gates, while leading four regiments to Washington's aid, stayed at the Van Campen Inn. In 1778-79 Pulaski's Legion was in the area around Port Jervis. Except for an expedition against the Iroquois in 1779, peace came permanently to the valley after the founding of the United States.

Until the mid-19th century, settlements were scattered and sparsely populated. Industry was slow to develop, although waterpower gave impetus to various types of milling. Transportation grew in response to local needs, with the river assuming some importance as barge and shallow-boat operations appeared in the 19th century, along with lumber rafts. Minerals were of small importance, although according to tradition copper may have been mined during the mid-17th century. Lumbering and a flagstone- and slate-quarrying industry that developed before the Civil War were mainstays of the regional economy until early in the 20th century, when they declined in importance and tourism emerged as a major economic factor. Resort hotels flourished until after World War I.

The cultural resources of Delaware Water Gap National Recreation Area are varied, ranging from prehistoric sites to early 20th century resort buildings. Between 1956 and 1975, under the auspices of the National Park Service, five surveys were conducted of the cultural resources in the recreation area. These surveys established that no theme, period, or event in the valley had any great influence on the history of the nation. Most resources are "old rather than historic, and stylistically representative rather than architecturally unique" (Cary 1964).

Subsequent studies have considered the eligibility of several resources for nomination to the National Register of Historic Places. The Cultural Resources map shows the cultural resources that are listed on or considered eligible for the National Register of Historic Places. Cultural

resources that were examined, plus a description and evaluation of those found eligible for the National Register, are listed in appendix D.

## SCENIC LANDSCAPE

The landscape of Delaware Water Gap is a combination of natural and cultural environments, with natural forces attempting to remove the evidence of man's occupation and to return the landscape to its virginal state. The many natural features include the Delaware River and its tributaries, the water gap, the fertile soils of the valley floor, and diverse plant and animal communities. These resources provided a hospitable environment first for native Americans and then for Europeans, who came to trap and farm, and later to play. The result is a landscape that has been fashioned to reflect the tastes, values, and ideas of a succession of cultures. It is a place where distinctive ways of life have molded the land and the land has molded the people.

Three basic landscape types are apparent in the recreation area: upland forests, rolling hills with diverse vegetation, and the river and open lowlands. Generally the landscape in Pennsylvania is dominated by the escarpment of the Pocono Plateau, with numerous waterfalls creating popular tourist attractions (particularly Dingmans, Raymondskill, and Silverthread). Most of the Pennsylvania uplands are wooded but a few homesteads and 20th-century resort camps remain (the Shoemaker and Goldhardt houses stand out). The Schoonover Mountain House and Honeymoon Haven (PEEC), both resorts from earlier in this century, have evolved into centers for community activities, youth programs, and environmental education. Intensive logging interrupted natural processes in the past, but much of this area is now approaching a climax state. A few sites, such as steep ravines in Pennsylvania, escaped logging and retain ancient vegetation types.

New Jersey is characterized by rolling hills leading up from the valley floor to the Kittatinny Mountains. This rolling landscape has retained much of its rural character and has changed little since early settlement times, and human intervention has been largely discontinued in recent decades. The landscape is now a mixture of successional stages. Flatbrook Valley, which constitutes one-third of the recreation area in New Jersey, is predominantly open. Several old farms, such as the Shoemaker-Houck farm, are characterized by small fields and hedgerows, woodlots, and farm buildings. Several assemblages of buildings and small villages remain, such as Millbrook, Peters Valley, and Walpack Center. Ruins of early mining and industrial activity at the Pahaquarry copper mines and the Slateford Farm on the Kittatinny ridge in Pennsylvania depict an earlier era.

The river and lowlands represent the third landscape type. The free-flowing Delaware River must appear much as it did to the Lenni Lenape. Several islands in the river offer recreational opportunities closely representing a wilderness experience. The fertile fields along the riverbank are in many cases the same fields that were tilled by the

earliest inhabitants, as evidenced by artifacts from early Indian settlements. Many farms remain in the river valley, including the Eshback and Brodhead-Heller farms in Pennsylvania and the Handler and Black farms in New Jersey. Because some of the farms have been in operation for a hundred years, the evolution of farming practices is illustrated.

Transportation along the Delaware has long followed routes at the level of the river. Legends hold that the Old Mine Road in New Jersey was the first commercial route in the valley. Roadhouses such as Copper Mine Inn and Van Campen Inn on Old Mine Road and the Shanna House on US 209, ferryhouses at Dimmick and Decker, and the one-lane bridge at Dingmans Ferry were all built to reflect changing travel patterns. Boating on the river offers a view of the valley, probably similar to what early traders and settlers saw.

There are many opportunities for viewing the scenic resources of the national recreation area. Pleasure driving and sight-seeing are among the most popular recreational activities in the United States. The proximity of the recreation area to the heavily populated New York/New Jersey metropolitan area offers a unique opportunity for many Americans to appreciate both the natural and cultural beauty of the Delaware Valley.

## VISITOR USE

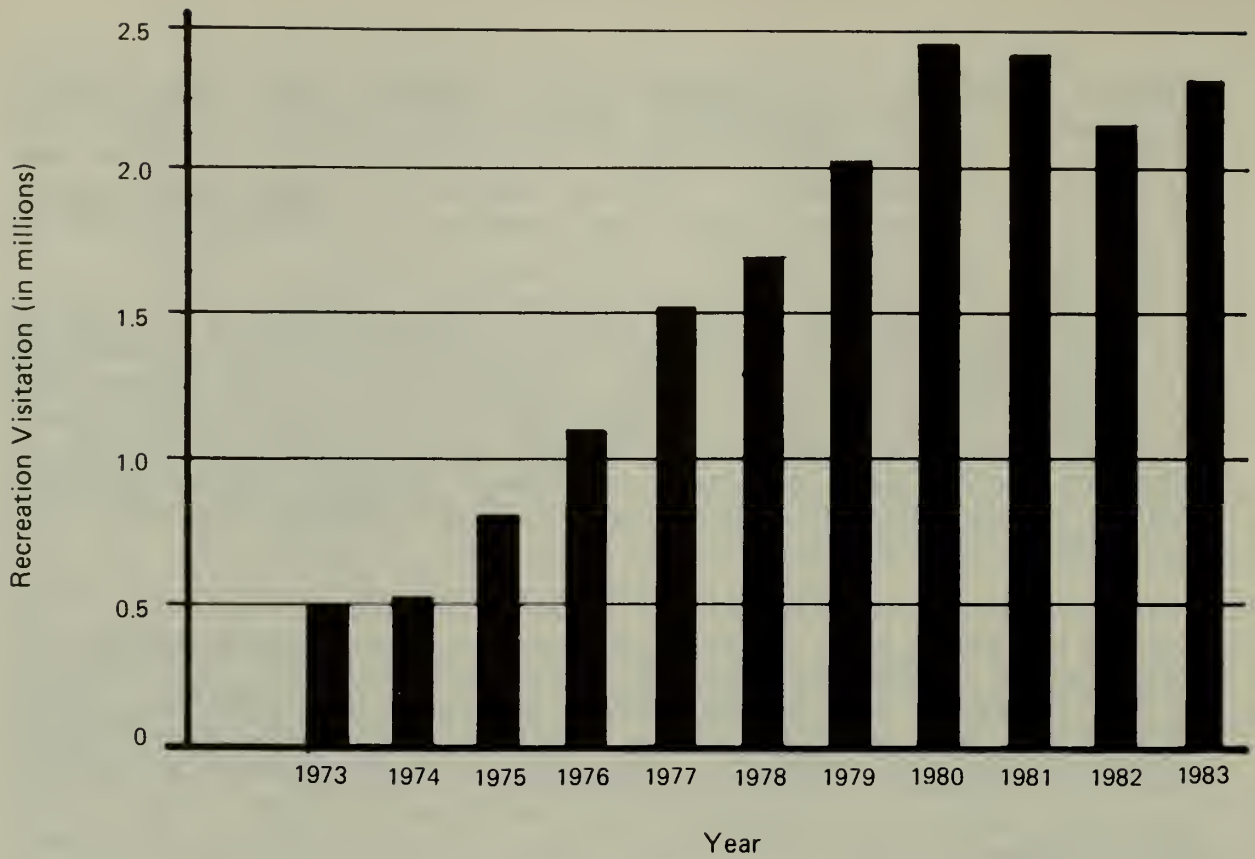
### Current Visitation

Delaware Water Gap's rural setting, recreational opportunities, and proximity to major population centers attract millions of visitors each year. Accurate visitor counts are difficult to obtain because access is not controlled. Numerous roads within the national recreation area lead to private properties, businesses, and state parks, forests, and game lands. There is also a substantial amount of drive-through traffic. In addition, counting techniques at many locations (over 80 in 1982) vary: Total counts are made at some locations, and estimates based on sample traffic counts are made at others. Therefore, it is probable that a visitor may be counted more than once.

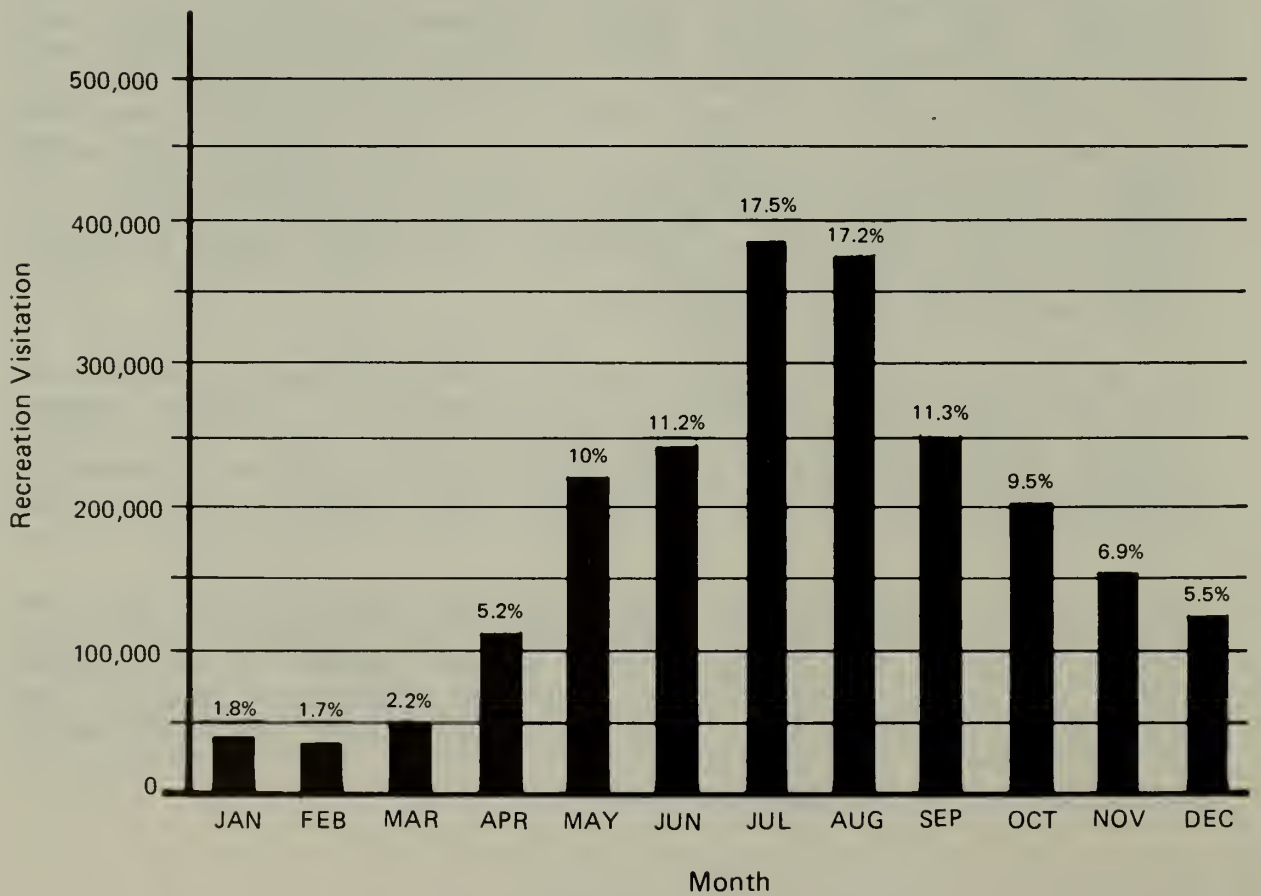
The bar graph for annual visits shows the overall increase in recreational use. The sharp climb in use is not as dramatic as it appears because counting techniques have changed twice and the number of counting locations has nearly tripled. Nevertheless, more people are discovering the charm and the abundant recreational opportunities the area has to offer.

The graph of average monthly visits indicates the distribution of use throughout the calendar year. Almost half of the visitors come from June through August, the typical summer activity period. The extended summer use period of May through September accounts for slightly over two-thirds of the annual use. Shad fishing is the major use in April, the fall color show is the main attraction in October. Hunting accounts for most of the use in November and December.

### ANNUAL VISITS 1973-1983



### AVERAGE MONTHLY VISITS 1978-1983 AND MONTHLY PERCENTAGE OF ANNUAL VISITS



According to visitor use data for 1978-83, the Pennsylvania side of the river on the whole receives significantly higher recreational use than the New Jersey side, except for Kittatinny Point, which receives the highest number of visitors in the national recreation area. Kittatinny Point is the major visitor contact point, and it offers boat/canoe launch ramps, picnic areas, and sight-seeing opportunities. Milford (beach, boat launch, and picnic area) and Smithfield (beach, boat launch, and picnic area) are the next most popular areas. The greatest use occurs during the summer months, with swimming, boating, canoeing, and picnicking being the most popular activities. Dingmans Falls is heavily used for hiking, sight-seeing, and visitor contact; and Dingmans ferry for boating. The Appalachian Trail is popular for long-distance hiking, nature study, sight-seeing, and camping. Numerous other sites within the recreation area record high levels of visitor use, but less than the sites noted above.

Several former resort or camp type facilities have been made available to interested organizations for residential and day use by students of all ages, particularly special-education students. These environmental education centers offer a variety of studies such as vocational skills, organic farming, wildlife management, forestry, and freshwater environments. Other cooperating programs include the Peters Valley annual crafts fair and the Millbrook Village Society, which joins with the Park Service in interpreting this village and stages the annual Millbrook Days. In 1983 more than 70,000 people participated in these cooperative activities.

Sight-seeing, both by car and on hikes, is likely the most popular use, although no figures exist. The most popular activities are canoeing, picnicking, hiking, swimming, fishing, boating, and hunting. Obviously, the focus of most of these activities is the Delaware River, and in 1983 over 177,000 visits were recorded that related to the river. Hunting and fishing occur in the recreation area and are managed in cooperation with state fish and game commissions. In 1983 there were 43,104 hunters and 103,736 fishermen. Visitors to the national recreation area are overwhelmingly urban and suburban residents from Pennsylvania, New Jersey, and New York. As such, day use is predominant, and overnight use, totaling over 95,000 in 1983, is limited to primitive camping mostly along the river, on the islands, and along the Appalachian Trail. Group camping is provided at several sites, and lodging is available as part of environmental education programs. The youth hostel on Old Mine Road accounted for only 403 visits in 1983. Unauthorized camping does occur in ravines and other attractive sites.

NPS interpretive programs include natural history programs at Dingmans Falls (audiovisual and evening), geology talks at Point of Gap, and self-guiding trails and outdoor exhibits throughout the national recreation area.

Cultural interpretation is conducted at Peters Valley, where skilled craftsmen produce, demonstrate, and teach their arts. Millbrook Village

is interpreted as a turn-of-the-century rural settlement, and at Slateford Farm two historic homes and the early slate industry are interpreted.

### Visitor Use Projections

Projected recreation visits at Delaware Water Gap National Recreation Area under current trends are estimated at between 3.3 million and 4.6 million by 1996. These projections are based on recreation visits to the area from 1971 through 1985 as well as assumptions that the area could handle 10 million annual visits in the decade 2030-2040 and that a very large population would remain within a day-trip visit of the recreation area through the next century. The assumed upper carrying capacity of 10 million visits per year for Delaware Water Gap National Recreation Area was developed by considering the extent of existing facilities and the level of current development of the national recreation area along with current visitor use trends.

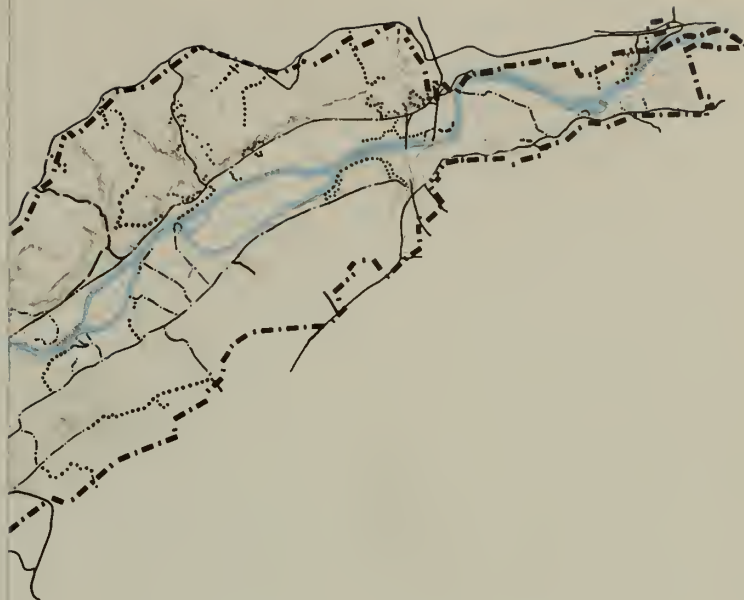
The statistical modeling done to provide visitor use projections is based on two different views of potential national economic trends. The low model reflects likely visitor use levels generated by a slower overall national growth level, while the high model indicates the upper potential of visitor use with a more rapidly expanding economy. Both models have been applied to the three alternatives, factored by the extent of development outlined in each alternative. The result is a range of visitor use projections for each alternative (see "The Proposal and Alternatives Considered").

### FACILITIES

Delaware Water Gap National Recreation Area is not highly developed. Existing facilities throughout the national recreation area (including park housing, ranger stations, and visitor contact stations) consist largely of adaptively used buildings that were in place before the recreation area was established. The headquarters building and associated maintenance facility, plus several comfort stations, are the only buildings designed and constructed by the National Park Service to date. The condition of the facilities ranges from good to poor, depending on structural soundness, age, and past upkeep (see table 13). The locations of existing facilities are shown on the General Development map for alternative 1.

### ACCESS AND CIRCULATION

There are more than 30 points of access into the national recreation area. The major ones are I-80, which crosses the Delaware River to the south, and I-84, which crosses to the north. On the Pennsylvania side are US 209 and PA 611 and 739, and on the New Jersey side are US 206 and Sussex County 521.



## Legend

- Recreation Area Boundary
- Non-NPS Administered Public Road (paved)
- - - NPS Administered Public Road (paved)
- - - Non-NPS Administered Public Road (dirt)
- - - NPS Administered Public Road (dirt)
- - - Non-NPS Administered Fire/Administrative Road
- - - NPS Administered Fire/Administrative Road
- ... Hiking Trail
- - - Appalachian Trail
- - - Snowmobile Trail
- - - Horse Trail

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



**EXISTING ROADS AND TRAILS**  
 DELAWARE WATER GAP NATIONAL RECREATION AREA  
 UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



### Legend

- Recreation Area Boundary
- Non-NPS Administered Public Road (paved)
- NPS Administered Public Road (paved)
- Non-NPS Administered Public Road (dirt)
- NPS Administered Public Road (dirt)
- Non-NPS Administered Fire/Administrative Road
- NPS Administered Fire/Administrative Road
- Hiking Trail
- Appalachian Trail
- Snowmobile Trail
- Horse Trail

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



**EXISTING ROADS AND TRAILS**  
DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

Table 13: Existing Facilities

Back-country	Campsites			Parking Spaces (car/bus)	Picnic Tables	Play- field	River Access			Swim Beach	Toilet Facilities	Visitor Information	
	Canoe	Family	Group				Canoe Put-in	Launch	Ramp			Point	Station
NPS Development													
Pennsylvania													
Slateford Farm				12							2**		
Duck Pond				10/1									
Arrow Island				20									
Minsi Launch Site				5									
Point of Gap				75/5			1				2**		
Resort Point				21								1	
Hialeah NRA Entrance													
Hialeah Picnic				50/1	33						3**		
Smithfield				200	15	1		1	1	1*	6**		
Hialeah Airpark				10		1							
Hidden Lake			3	80/2	6	1	1			1	4**		
Headquarters				30									
Bushkill Access				15				1					
Toms Creek				10	7								
Eshback Launch				15				1			2**		
Pocono Access							1						
Shapnack Access													
Hornbeck	20						1				1		
Loch Lomond				5	10								
Childs Picnic Area				55	50						3		
Dingmans Falls				60/3	6						1*		
Pennsylvania											3		1
District Office				10							6		
Dingmans Launch				110	10		1	1			4		
Raymondskill Falls				20	3								
Tocks Airpark				20		1							
Milford Beach				100/4	20	1		2		1*	6**		
Peirce House				3									
New Jersey													
Kittatinny Point				101/5	20				2		6**		1
Dunfield Creek				50/2									
Copper Mine Inn				100				1					
Pahaquarry Copper Mines				12/3									
Poxono				6				1			2**		
Depew Recreation Site				20	12	1		1			2		
Van Campens Glen				10	6						1**		
Hamilton	14										2***		
Watergate				30/3	12	1					4**		

Back-country	Campsites			Parking Spaces (car/bus)	Picnic Tables	Play-field	River Access			Swim Beach	Toilet Facilities	Visitor Information	
	Canoe	Family	Group				Canoe Put-in	Launch	Ramp			Point	Station
NPS (cont.)													
Millbrook Village				20	6						2*	1	
Rivers Bend			5	10/10		1	1				10		
Peters	18			10							1		
Crater Lake				3									
Buttermilk Falls				40/2	6						4		1
Thunder Mountain											1		
Peters Valley	8												
Sandyston				1,348/41	222	8	6	9	3	3	78	2	3
Subtotal	0	0	8										
Private Development													
Pennsylvania													
Dingmans Campground		108		200	108	1		1			10		
Shanna House				10									
New Jersey				50							1**		
Walpack Inn						1							
Sussex Pond													
Subtotal	0	0	0	260	108	2	0	1	0	0	11	0	0
GRAND TOTAL	0	108	8	1,608/41	330	10	7	10	3	3	89	2	3

\* Beachhouse provided.  
 \*\* Including portable toilets.  
 \*\*\*Clivus Multrum toilet.

Vehicle circulation within the national recreation area boundary consists of a network of federal, state, county, township, borough, and private roads. Many of these serve a variety of functions, including visitor use, access to private developments, and local commuter traffic. The major circulation routes include US 209, US 611, and River Road in Pennsylvania, and the New Jersey River Road, Old Mine Road, and Flatbrook Valley Road in New Jersey.

It is estimated that over 90 percent of the visitors to the national recreation area come by private vehicle. The percentage of people in nearby metropolitan areas who do not own automobiles is far greater than the national average, and the cost of other means of access to the national recreation area is a barrier to many potential visitors.

Programs that attract large numbers of visitors at one time, such as music festivals or craft fairs, result in serious traffic congestion. On summer weekends, especially Friday evenings and Sunday afternoons, both access and internal road systems are taxed by the combination of national recreation area visitors, through-traffic, and other recreation traffic.

#### LANDOWNERSHIP

Of the 69,629 acres (28,172 ha) in the national recreation area, nearly 52,675 acres (21,325 ha) are in federal fee ownership and 4 acres (1.8 ha) in easement. (The Existing Land Status map indicates the distribution of these lands.) Approximately 7,500 acres (3,035 ha) are owned by state and local governments, with the largest portion making up Worthington State Forest (5,500 ac, 3,035 ha). Private land within the authorized boundary amounts to approximately 5,170 acres (2,091 ha). The remaining acreage is water under various jurisdictions. The Land Protection Plan discusses the status of nonfederal lands within the boundary of the national recreation area and recommends land protection strategies.

Not all land in federal ownership is available for general public use. Through special use permits, leases carried over from the Corps of Engineers, and agreements with cooperating organizations, the following private, business, and quasi-public uses are permitted (see Existing Land Status map):

Extended tenancy or life estate - allowed for previous owners and spouses to reserve the premises for single-family noncommercial residential purposes for a period of 25 years or less, or as a life estate. There are now 13 life estates covering 45 acres (18 ha) and one extended tenancy for 2.5 acres (1 ha).

Year-round residential use - allowed under five-year special use permits (sometimes called leasebacks) for persons making the premises their domicile. All existing renewable permits are

scheduled to terminate on September 30, 1990. Currently, there are 40 such residences on approximately 91 acres (37 ha).

Agricultural use - allowed under 24 variable length use permits (3,032 acres, 1,228 ha). Approved crops are grown to benefit the permittee, and the national recreation area benefits from the maintenance of open land for wildlife food and cover.

Cooperating association use - allowed under special use permits or cooperative agreements whereby school boards, colleges, historical and craft associations, and others may use prescribed structures and areas for the benefit of students, apprentices, and others interested in particular activities. The general public also benefits in that some of the processes, products, and special events are available through interpretation or sales. Much of this use occurs in historic structures. Examples of cooperating association uses include the Pocono and Walpack Valley environmental education centers, Peters Valley craft village, and the Montague Association for the Restoration of Community History (MARCH) museum. Currently, there are five permits and agreements covering approximately 305 acres (123 ha) and three concession permits for approximately 42 acres (17 ha).

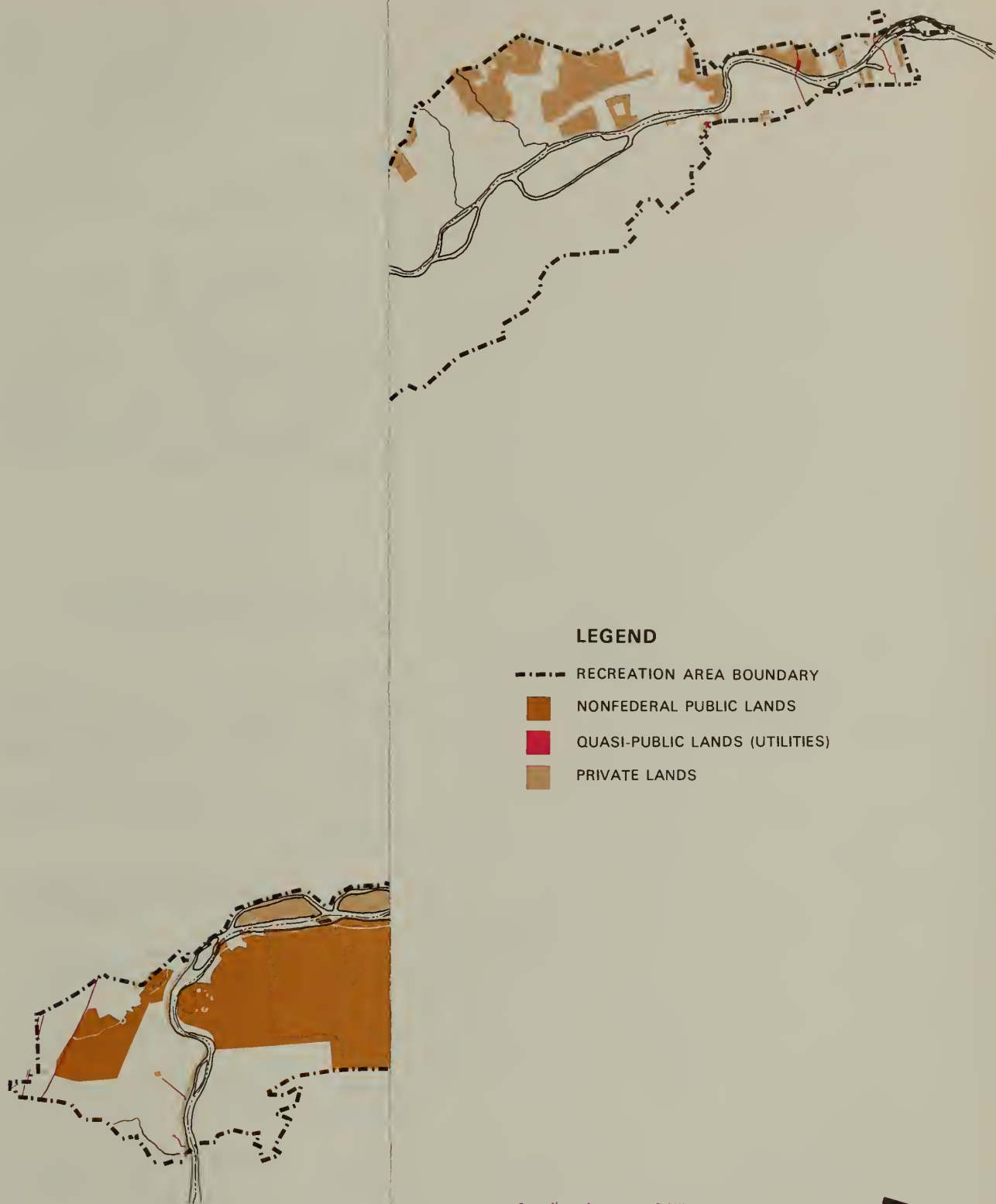
This variety of uses on federal land for specific interests and for the general public are overseen by the recreation area staff.

## OPERATIONS

Currently, most park maintenance and operations are centrally run out of the headquarters. Subdistrict maintenance and ranger stations can be expanded to meet increasing visitor pressures.

The present NPS staff consists of 69 full-time, 75.7 part-time, and 22 seasonal employees. To operate and maintain existing facilities and programs, an additional 18 full-time positions (or the equivalent) are needed. The superintendent and assistant superintendent coordinate four divisions: resource protection and visitor management, administration, visitor services and resource management, and maintenance.

The National Park Service has proprietary jurisdiction throughout most of the recreation area. The enabling legislation, PL 89-158, states that "nothing in this Act shall be construed to deprive any State, or political subdivision thereof, of its right to exercise civil and criminal jurisdiction over the lands and waters within the area." Because of this provision, the National Park Service can enforce only those regulations necessary for the administration of the area only on lands it owns (proprietary jurisdiction). Any criminal offense committed on other lands, including all roads except US 209 and River Road in Pennsylvania within the national recreation area, must be handled by appropriate local or state law enforcement officials. The National Park Service and Pennsylvania



### LEGEND

- RECREATION AREA BOUNDARY
- NONFEDERAL PUBLIC LANDS
- QUASI-PUBLIC LANDS (UTILITIES)
- PRIVATE LANDS

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



## EXISTING LAND STATUS

DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



**LEGEND**

- RECREATION AREA BOUNDARY
- NONFEDERAL PUBLIC LANDS
- QUASI-PUBLIC LANDS (UTILITIES)
- PRIVATE LANDS

0 1/2 1 2 Miles  
0 1 2 3 Kilometers



**EXISTING LAND STATUS**  
DELAWARE WATER GAP NATIONAL RECREATION AREA  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

share concurrent jurisdiction on US 209 and River Road in Pennsylvania. The goal is to obtain concurrent jurisdiction throughout the national recreation area. The National Park Service is currently exploring the possibility of legislation with the states of Pennsylvania and New Jersey to cede concurrent jurisdiction on a statewide basis.

The task of managing and operating a national recreation area as large and popular as Delaware Water Gap has required the assistance of others. These are listed in table 14.

In addition to the organizations listed in table 14, NPS staff monitor special uses of national recreation area lands that are not directly related to park purposes. These uses include utility companies such as Metropolitan Edison Company, New Jersey Bell, Bushkill Water Association, and Montague Cable, the borough of Portland water supply system, three U.S. Post Offices, the Montague Grange, Pike County Chamber of Commerce (information booth), and several churches. Over 25 permits for such special uses are currently in effect, some predating the establishment of the national recreation area.

Table 14: Agencies, Business Groups, and Individuals Assisting in Operation of Delaware Water Gap National Recreation Area

<u>Name</u>	<u>Form and Date of Agreement</u>	<u>Purpose</u>
Blainstown Fire Company	Cooperative Agreement (1985-1990)	Cooperative fire control
Bushkill Ambulance Corps	Special use permit (1983-2003)	Building site
Bushkill Volunteer Fire Company	Cooperative agreement (1983-1993)	Cooperative fire control
Delaware Township Volunteer Fire Company	Cooperative agreement (1983-1987)	Cooperative fire control
Delaware Water Gap Fire Company	Cooperative agreement (1983-1987)	Cooperative fire control
Eatontown School District	Memorandum of agreement (1983-1988)	Environmental education programs
Flying Hawks Recreation Club	Special use permit (1985-1989)	Model airplane flying

<u>Name</u>	<u>Form and Date of Agreement</u>	<u>Purpose</u>
Individual farmers	Special use permits (variable)	Agricultural activities
Keystone Junior College	Memorandum of agreement (1982-1987)	Environmental education programs
Marshall's Creek Fire Department	Cooperative agreement (1983-1987)	Cooperative fire control
Milford Fire Company	Cooperative agreement (1983-1987)	Cooperative fire control
Millbrook Village Society	Cooperating association agreement (1974)	Living history interpretation
Montague Association for the Restoration of Community History (MARCH)	Special use permit (1980-2000)	Interpretation of Neldon-Roberts schoolhouse
Sandyston Township	Special use permit (1984-1989)	Township ballfields
Montague Volunteer Fire Company	Cooperative agreement (1978-1983)	Cooperative fire control
Mount Bethel Volunteer Fire Company	Cooperative agreement (1983-1987)	Cooperative fire control
Music Performance Trust Fund	Purchase order (yearly)	Evening concerts
New Jersey Division of Fish, Game, and Wildlife	Memorandum of understanding (1985-1990)	Fish and wildlife management
New Jersey Forest Fire Service	Cooperative agreement (1985-1990)	Cooperative fire control and forest management
Pennsylvania Department of Environmental Resources	Cooperative agreement (1983-1987)	Cooperative fire control and natural resource management
Pennsylvania Fish Commission	Special use permit and memorandum of understanding (1985-1989)	Cooperative fish management

<u>Name</u>	<u>Form and Date of Agreement</u>	<u>Purpose</u>
Pennsylvania Game Commission	Memorandum of understanding (1984-1988)	Cooperative wildlife management
Pennsylvania Guild of Craftsmen	Special use permit (1981-1990)	Crafts store
Pennsylvania State Police	Cooperative agreement (1985-1990)	Cooperative law enforcement
Peters Valley Craftsmen Association	Memorandum of agreement (1983-1988)	Arts and crafts demonstrations, workshops, gift shop
Pocono Modelers	Special use permit (1981-1985)	Model airplane flying
Portland Fire Company	Cooperative agreement (1983-1987)	Cooperative fire control
Private individuals, special interest groups, etc.	(a) Individual voluntary service agreement, (b) memorandum of understanding/cooperative agreement on project or short-term basis, or (c) letter of consent	Volunteer time and expertise
Sandyston Township Fire Company	Cooperative agreement (1984-1989)	Cooperative fire control
Schoonover Community House Association	Special use permit (1984-1988)	Community services and library
Stillwater Area Volunteer Fire Company	Cooperative agreement (1984-1988)	Cooperative fire control
Trenton State College	Special use permit (1985-1989)	Environmental education programs
Westfall Township Volunteer Fire Company	Cooperative agreement (1983-1987)	Cooperative fire control
Water Gap Hang-Gliding Club	Special use permit (1986-1987)	Hang-gliding
Young Men's Christian Association	Special use permit (yearly)	Summer day camp



## ENVIRONMENTAL CONSEQUENCES

The "Environmental Consequences" section forms the analytical basis for comparing the proposed plan and alternatives. The effects of implementing each alternative are described for the socioeconomic environment, visitor use, the scenic landscape, and natural and cultural resources. Facilities that would be developed under each alternative are summarized in table 15 and are compared to existing conditions. The major effects of the alternatives are summarized in table 16.

## SOCIOECONOMIC EFFECTS

### PRIVATE LANDOWNERS

#### Proposed Plan

Within the existing approved boundary are 5,170 acres of private holdings. The Land Protection Plan recommends that 1,814 of those acres be acquired in fee from the present owners on a willing-seller/willing-buyer basis, with 2,928 additional acres being covered by easement purchases, again on a willing-seller/willing-buyer basis. The Park Service could acquire properties when a proposed use or development could significantly damage park resources or would be incompatible with park values, regardless of priority and if no other effective means of preventing damage was available. In these instances the National Park Service would immediately attempt to acquire and pay just compensation for such land or interest in land. If this failed, authority would be requested for the filing of a declaration of taking to prevent resource damage. The condemnation of some parcels for recreation facility development, resource protection, or operational/administrative functions could displace some occupants. However, the national recreation area is becoming regarded as a permanent and in many ways beneficial presence, so landowners within the boundary have become more interested in selling their property to the National Park Service. Impacts on displaced residents would be mitigated under the Uniform Relocation Assistance and Real Property Acquisition Policies Act (PL 91-646). In addition many residents would be given life tenancies or extended rights of use or occupancy. Property owners must by law receive fair market value for purchased properties.

#### Alternative 1

The Land Protection Plan would be implemented similarly to the proposed plan, with 1,814 acres of private land within the authorized boundary recommended for fee acquisition from the present owners on a willing-seller/willing-buyer basis, and 2,928 acres recommended for easement purchase (willing seller/willing buyer). Because alternative 1 would basically continue existing conditions, very few parcels were identified for park development needs; therefore, hardship willing-seller cases would receive first consideration when acquisition monies were available to the park. As under the proposed plan, impacts on displaced residents would be mitigated under the Uniform Relocation Assistance and Real Property Acquisition Policies Act (PL 91-646). Property owners must by law receive fair market value for purchased properties.

## Alternative 2

Under alternative 2 lands within the boundary would once again be protected according to the approved Land Protection Plan, except that the Rosenkrans ferryhouse would be purchased by the Park Service. This action would result in removal of a commercial campground on private land within the national recreation area boundary. This would be mitigated by establishing additional family campgrounds under concession contract to the Park Service. Other parcels outlined in the Land Protection Plan for fee acquisition and subsequent NPS development would still be pursued on a willing-seller/willing-buyer basis. Property owners must by law receive fair market value for purchased properties.

## LOCAL GOVERNMENTS

### Proposed Plan

Implementation of the proposed plan would not have significant impacts on state or county governments in terms of removing additional lands from the local tax base. Any loss in tax revenues by local governments would be partially offset by payments in lieu of taxes. For example, federal funds for payments in lieu of property taxes in the Delaware Water Gap National Recreation Area for 1983 were as follows: Montague, \$4,867.76; Sandyston, \$6,637.20; Walpack, \$12,569.04. Sussex County received \$15,221 in federal funds for maintaining county roads and bridges within the park area. The National Park Service would take over road maintenance and provide additional police protection within the recreation area boundaries, thus reducing these costs to local governments. Roads outside the recreation area would likely require additional maintenance expenditures because traffic volumes would increase with greater visitation. These increased expenditures would probably offset any savings to local governments from having to maintain fewer roads.

As visitation to the national recreation area increased, so would the potential for demands on services such as hospitals and law enforcement services provided by adjacent communities. However, statistics on incidents, accidents, and arrests demonstrate that even with a proportionate increase in such incidents, the demand placed on community services by visitors would be low. This would be particularly true if the National Park Service received concurrent jurisdiction (see appendix G). Current agreements with fire and ambulance services in the communities surrounding the national recreation area would be continued. The Bushkill fire and ambulance crews have a service-in-return-for-lease agreement.

## Alternative 1

Effects on state and county governments under alternative 1 in terms of private lands removed from the local tax base would be a continuation of the current situation. Losses in tax revenues would be partially offset

by payments in lieu of taxes. Certain local governments also receive road maintenance funds for portions of roads and bridges that they maintain within the recreation area. No additional demands would be placed on local hospitals and law enforcement agencies.

## Alternative 2

Effects on state and county governments under alternative 2 in terms of removal of properties from tax rolls would be similar to the proposed plan. Projected increases in visitor use would result in greater demands for services in the local communities.

## THE LOCAL ECONOMY

### Proposed Plan

The development of a greater number and variety of facilities under the proposed plan would generate more visitor use both inside and outside the national recreation area. Consequently, tourist expenditures would increase moderately and would represent input to the local economy for goods and services. The average visitor spends about \$10 per day locally, based on a study of visitors to Gettysburg National Military Park that was conducted by the Pennsylvania Department of Community Affairs.

Resource utilization under the proposed plan would involve leasing approximately 45 percent of the lands within the recreation area for landscape management. This would benefit the local economy by allowing private interests to establish profit-oriented operations on recreation area lands.

The proposed plan would result in an additional 43.7 work-years of park staff positions, resulting in a significant impact to the local economy because of expenditures for housing and other necessities. Presumably much of the staff would be transferred from other national park system units, representing increased income to the region.

Additional employment of local residents on the park staff and in concession employee positions would directly benefit adjacent counties. Park expenditures, purchase of supplies and equipment from local sources, and construction contracts successfully bid on by local firms would also benefit the local economy.

## Alternative 1

Visitor use at Delaware Water Gap would continue to grow at its present rate, with few new facilities to attract a wider range of people. The current level of visitor expenditures would continue.

Park staffing levels would remain at or near present levels, and the local economy would experience minimal increases in terms of staff expenditures for housing and other necessities. Similarly, park expenditures, purchase of supplies and equipment from local sources, and construction contracts with local firms would remain virtually the same. With minimal development under alternative 1, there would be limited need for new park staff drawn from the local labor pool.

## Alternative 2

Alternative 2 would result in the development of the greatest number and variety of facilities, thus generating expanded visitor use both inside and outside the national recreation area. However, the development of overnight lodging facilities could reduce short-term demand at surrounding resorts. Resultant tourist expenditures would increase and represent the greatest local input for goods and services.

National recreation area staffing would reflect the different emphasis of this alternative by increased numbers of employees in the areas of law enforcement and administration of concession contracts. The large number of concession operations within the national recreation area would require staffing of approximately 6½ work-years. These positions would probably be filled from the local job pool. The total increase in all areas of employment would be 57 work-years.

The extensive potential for development by concessioners in this alternative would result in the greatest potential for construction related employment, purchase of materials, and subsequent operational employment. This alternative could result in the greatest positive impact upon the local economy.

## REGIONAL GROWTH TRENDS

### Proposed Plan

Increased visitor use and development of the national recreation area under the proposed plan could accelerate trends in Pike and Monroe counties toward more seasonal, recreation-related development. In Monroe County second-home developments and time-share condominium projects are growth factors, while in Northampton and Pike counties subdivisions and second-homes are major population contributors. Over 500 time-share condominiums as well as numerous time-share campsites have been constructed in Monroe County, with more planned for the near future.

In Warren and Sussex counties, located in an agricultural and recreational area of New Jersey, trends toward recreation facility and residential development could also be accelerated under the proposed plan. These counties are already being affected by populations spreading out either from existing urban areas or from areas of easy access.

Under alternative 1 the present seasonal, recreation-related development trends of Pike and Monroe counties in Pennsylvania would not be substantially affected by the continuation of existing conditions in the national recreation area. The existing trends toward development in rural Sussex and Warren counties of New Jersey would be minimally affected by the presence of Delaware Water Gap National Recreation Area.

Regional growth trends depicted under the proposed plan would be affected to a greater extent under alternative 2. These include greater subdivision and second-home development, as well as recreation facility development.

#### STATE OUTDOOR RECREATION NEEDS

Under the proposed plan recreational needs identified in the New Jersey and Pennsylvania statewide comprehensive outdoor recreation plans would be partially met by the National Park Service. In Pennsylvania the needs that would be partially met would include additional picnic facilities, natural swimming areas, small-game hunting areas, bicycle and hiking/walking trails, snowmobile routes, and ice-skating facilities. In New Jersey additional opportunities would be provided for freshwater swimming, boating, fishing, ice-skating, bicycling, picnicking, hunting, snowmobiling, and cross-country skiing.

Under alternative 1 recreational needs identified by New Jersey and Pennsylvania in their statewide outdoor recreation plans would not be as fully met as under the proposed plan or alternative 2.

The possible growth in local recreation facilities under alternative 2 would provide the greatest expansion of facilities to supplement the needs identified in the Pennsylvania and New Jersey state comprehensive outdoor recreation plans.

## EFFECTS ON VISITOR USE

### THE VISITOR EXPERIENCE

#### Proposed Plan

The diverse activities provided under the proposed plan would draw a wide range of visitors to the area, ranging from those who desire a highly structured resort-type experience to those seeking an isolated "wilderness" experience. Facilities would nearly double the existing size, which would substantially increase the number of visitors who could be accommodated. Projected visitation could be between 5.0 million and 6.9 million visits by 1996.

The dispersal of recreation facilities would reduce crowding and congestion, as well as the potential for conflicts between user groups. Limitations on some activities, such as seasonal speed restrictions on the river, would reduce recreational opportunities for some specific users, in this case high-speed motorboaters and waterskiers.

The majority of activities would continue to be free, so visitor use would not be limited by the ability to pay.

The proposed five staffed information stations, along with a system of information panels and kiosks, would enhance visitor recognition of the Delaware Water Gap National Recreation Area. The location of information facilities at all major entrances would ensure that all visitors had the opportunity to get up-to-date information about the park and available activities.

The interpretive program described for the proposed plan would provide visitors with expanded opportunities to learn about and appreciate the park. The interpretive program would include something for all visitors because all the themes represented by park resources (natural, cultural, and recreational) would be conveyed. The cooperative programs such as Millbrook, MARCH, various trail clubs, and sportsmen's affiliations would allow local people to be actively involved in the functions of the national recreation area and to maintain a long-term interest. The availability of both structured programs and self-guided tours would allow visitors to participate in a variety of interpretive programs of their own choosing.

Handicapped individuals might not be able to participate in all activities at all areas, but a sampling of what the national recreation area has to offer would be available.

#### Alternative 1

The continuation of visitor recreation facilities at or near present levels would continue to limit opportunities for visitor enjoyment. The

overcrowding of existing facilities would be somewhat relieved by ongoing improvement projects, but long-term congestion and overcrowding would increase. Any increase in demand would probably result in an increase in conflicts between user groups vying for the use of limited facilities. A continuation of current visitation trends would result in between 3.3 million and 4.6 million visits by 1996.

General activities would continue to be free (specialized activities being charged a fee), so visitor use would not be limited for this reason. Restrictions on river use would totally eliminate two existing activities--speedboating and waterskiing.

Continuing to provide information at six internal interpretive/recreation sites would do nothing to improve the perception of the area as an integrated area. First-time visitors would have to find existing interpretive facilities to get information about services or recreational opportunities.

The existing interpretive programs would continue to provide visitors with an overview of natural and cultural themes. The more universal themes, including an understanding of the interrelationships of contemporary man with the natural and cultural environment and how it shapes our social and environmental awareness, would not be conveyed.

## Alternative 2

Emphasis on commercial concession development would likely result in facilities that attracted visitors who preferred the more highly structured/developed park experience. Opportunities for wilderness-type experiences would be reduced because more than half the lands of the recreation area would be leased for farming, timbering, and mining. The clustering of facilities and activity areas to ensure the economic viability of concessioner operations would result in structured types of uses. The expansion of facilities to nearly four times the existing would accommodate far more visitors than under the proposed plan or alternative 1. This expanding facility capacity, and the corresponding use increase, could result in 6.7 million to 9.2 million visits by 1996.

Although most of the existing NPS facilities would continue to be free of charge, virtually all new concessioner developed facilities would be allowed to charge a fee for use. This would exclude some visitors from private concession developments, and some visitors would object to having to pay to use public land.

Visitors attracted to the limited number of free facilities would likely continue to increase over time. The potential for conflicts among groups at the free facilities would likely be greatest under this alternative due to overcrowding.

Establishing use zones on the river would increase recreational diversity by providing a quiet zone where nonmotorized craft users could have an

experience not otherwise available. The zones would, however, restrict the use of motorized craft. High-speed boats and waterskiing would only be allowed in a 9-mile segment, and all motors, including low-speed trolling motors, would be prohibited in this 9-mile stretch for three months per year.

Information services and facilities would be similar to the proposed plan. In addition, commercial facility operators would provide information about the area. This would greatly increase the number of locations where information was available. However, there would be no way to ensure that visitors got up-to-date information about the full range of opportunities available, including those that were free of charge. The major NPS interpretive facilities and programs would remain the same as the existing. Personal interpretation by NPS rangers would be limited, and brochures, exhibits, and signs would be the primary interpretive means.

## PUBLIC RECREATIONAL OPPORTUNITIES

### Proposed Plan

Approximately 95 percent of the recreation area would be available for public recreational use, and few restrictions on use would apply to the majority of the area. Some activities, however, would be restricted. For example, hunting would be prohibited in historic and developed areas and on private lands or leased lands where it would be incompatible with the leaseholder's use. The predominant activities of leaseholders would be agriculture and forestry, which are beneficial to wildlife habitat and are compatible with hunting. Between 85 and 92 percent of the recreation area would be available for hunting.

### Alternative 1

Under this alternative approximately 95 percent of the recreation area would be available for public recreational use. Few restrictions on use would be in force. Limited development (half of the proposed plan and a quarter of alternative 2) would not significantly increase the attractiveness of the area in numbers or types of visitors.

Up to 93 percent of the area would be available for hunting, excluding historic and developed areas and private lands. However, limited landscape management would result in less habitat diversity, thus reducing the number of deer but increasing the number of forest game species.

### Alternative 2

Under this alternative activities of leaseholders would determine how much of the recreation area was available for public recreational use. Although

resource utilization activities (mining, timbering, and agriculture) would not be allowed to interfere with the major purposes of the recreation area, including public recreation, lands available for free public recreational use could range anywhere from 43 to 90 percent of the area.

The fewest restrictions on the types of recreational use would be in force under this alternative; however, visitors would pay private concessioners to participate in the majority of those activities that required support facilities.

Because of the substantially increased development and commercial use of lands by leaseholders, the area available for hunting would be reduced to anywhere from 60 to 90 percent of the recreation area. Although some resource utilization practices such as mining would be incompatible with hunting, the overall resource utilization program would diversify wildlife habitat and increase the variety of game species.

## RIVER ACCESS

### Proposed Plan

Access to the river for water-oriented activities would be substantially improved. The number of access points under the proposed plan would be essentially the same as under alternative 2, with the number of canoe put-ins being slightly higher. All but one of the accesses (at Dingmans campground) would be free of charge.

The diversity of accesses, including 9 miles of New Jersey riverbank designated for undeveloped informal access, would accommodate the widest variety of users, including boaters and anglers. The dispersal of accesses along the river would reduce potential conflicts among river users.

### Alternative 1

Upgrading existing river access points and constructing two additional points would slightly improve visitor access to the river. However, access points would continue to be combined with other uses at a few locations, resulting in congestion and conflicts among users (for example, boaters and anglers).

### Alternative 2

Developed access to the river would be greatest under this alternative, but the amount of undeveloped riverbank would be the least. Users of most boat launches and ramps would have to pay a fee for such use.

## OVERNIGHT USE

### Proposed Plan

Opportunities for overnight use of the recreation area would be substantially increased over existing conditions yet less than under alternative 2. Canoe camping areas would be doubled and family camping facilities would be quadrupled, whereas group campsites would increase by a fourth. The development of 45 backcountry campsites as well as the potential development of lodging facilities at Long Pine Lake, Walpack Center, and bed-and-breakfast operations in various historic structures would create two new types of overnight use not currently available. These facilities would provide opportunities for visitors who are not comfortable in traditional camping situations to stay overnight in the recreation area.

### Alternative 1

Opportunities for overnight use of the recreation area would not substantially change from existing conditions. Bed-and-breakfast type facilities would be developed in historic structures, at the initiative of private individuals.

### Alternative 2

This alternative would provide the greatest number and variety of overnight use opportunities. Canoe campsites would be increased by 116 percent, family campsites for tents and recreation vehicles would increase by 640 percent, and group campsites would increase 12 percent. Seventy-five backcountry campsites would be developed by the National Park Service, as compared to none under alternative 1 and 45 under the proposed plan.

Overnight lodging by private concessioners would be limited only by economic viability. Types of facilities would range from bed-and-breakfast operations to hotels to full service resort complexes. These facilities would attract the widest range of types of visitors for overnight use.

Table 15: Comparison of Facilities Provided by NPS and Private Developers

	Campsites				Parking Spaces (car/bus)	River Access			Swim Beach	Toilet Facilities	Visitor Information	
	Back-country	Canoe	Family	Group		Canoe Put-in	Launch	Ramp			Points	Stations
<u>Alternative 1</u>												
NPS	0	60	0	8	1,844/50	7	9	3	3	142	2	3
Private	0	0	108	0	260/0	0	1	0	0	11	0	0
Total	0	60	108	8	2,104/50	7	10	3	3	153	2	3
Percentage Change from Existing Conditions	0	0	0	0	+31%/+22%	0	0	0	0	+72%	0	0
<u>Proposed Plan</u>												
NPS	45	120	0	9	3,887/80	17	16	4	5	266	4	5
Private	0	0	458	0	600/3	0	1	0	1	11	0	0
Total	45	120	458	9	4,487/83	17	17	4	6	277	4	5
Percentage Change from Existing Conditions	*	+100%	+324%	+12%	+179%/+101%	+143%	+70%	+33%	+100%	+211%	+100%	+100%
<u>Alternative 2</u>												
NPS	75	130	0	9	2,727/75	12	10	2	3	213	4	5
Private	0	0	800	0	2,765/26	2	8	3	5	177	0	2
Total	75	130	800	9	5,492/101	14	18	5	8	390	4	7
Percentage Change from Existing Conditions	*	+116%	+640%	+12%	+242%/+146%	+100%	+80%	+66%	+166%	+338%	+100%	+133%

\*No facilities at present

## EFFECTS ON THE SCENIC LANDSCAPE

### PROPOSED PLAN

The combination of landscape management techniques and other more traditional resource management practices would result in a diversity of landscape qualities and the preservation of minor or small-scale cultural and natural resources that might otherwise be lost through neglect. The mix of vegetation types and successional stages (15 percent open land for agriculture; 8 percent open land for development, recreation, and historic sites; 30 percent midsuccessional forest; 47 percent maturing forest) would maintain the area's present scenic diversity and blend of natural and man-made landscapes. The present scenic diversity, which is rapidly being lost, would be recaptured to some degree.

### ALTERNATIVE 1

Landscape and vegetation management would be undertaken in developed, historic, and agricultural areas only. Eight percent of the national recreation area would be kept open through agriculture, and approximately 7 percent of the area would be kept open through traditional landscape methods in historical and developed areas and on private land. The remaining 85 percent would be allowed to return to natural conditions. Because natural processes would be allowed to continue throughout the majority of the recreation area, much of its existing scenic diversity would be lost over the long term. Old fields not in the agricultural zone would revert to forest, and small-scale components (for example, fences and hedgerows) would be lost. The overall mosaic of the landscape--the scenic vistas and the contrast between open fields, various midsuccessional vegetative communities, and mature forests, as well as the diversity of wildlife they support--would gradually disappear.

The end result of this process would be a relatively homogeneous landscape most closely representing its appearance before settlement by Europeans. In the opinion of many people this "wilderness" type landscape would have scenic value.

### ALTERNATIVE 2

Utilization of natural resources in the recreation area would result in a scenic and vegetative diversity, although existing patterns would not necessarily be perpetuated. NPS management and utilization by private enterprise would result in 10 percent of the area being generally kept open for development, recreation, and historic sites; 30 percent being used for agriculture, grazing, or mining; 30 percent going through various midsuccessional forest stages as a result of timbering and woodland management practices; and 30 percent being in mature vegetative stages.

The need for the most cost-effective or profitable land management techniques would result in the loss of some small-scale landscape components. For the most economical farming, small fields would be merged into large fields, resulting in the leveling of land and the loss of fences and hedgerows. Cost-effective timbering techniques could result in substantial clear cutting and the construction of additional logging roads. If mining occurred, it would add a new component to the landscape and thereby increase diversity. However, in the opinion of many people, mining would not contribute to the overall scenic quality, rather it would leave difficult-to-repair scars.

## EFFECTS ON NATURAL RESOURCES

### SOILS

#### Proposed Plan

Most of the land within the national recreation area is not suitable for development because of shallow rocky soils, steep slopes, high water tables, or susceptibility to flooding. Developments proposed in the plan would occur where soils have moderate to severe limitations. The total developed area (excluding roads and trails) would affect approximately 900 surface acres (364.4 ha).

Reconstruction of existing roads and development of new roads would have an impact on soils. Although the existing right-of-way would be used whenever possible, there would be changes in vertical alignment of the roadbed. These changes would be made by altering the existing topography through the removal of material from the roadbed or adding material to it. Assuming an average corridor width of 60 feet (18.3 m), this action would affect 1,134.5 acres (459.3 ha) for 156 miles (256.5 km) of paved roads and 821.8 acres (332.7 ha) for 113 miles (182.3 km) of unpaved roads. Closing 65 miles (104.8 km) of existing roads and revegetating them, or allowing natural succession, would affect 472.7 acres (191.4 ha).

Development of approximately 185 miles (596.7 km) of trails would require the alteration of the topography through minimal cutting and filling. The upgrading of existing trails and the construction of new trails would disturb 157 acres (63.6 ha), assuming a 7-foot (2.1 m) trail corridor for 185 miles of trails. Removal of vegetation during construction periods could cause some soil erosion.

The construction of buildings, roads and parking areas, trails, and other impermeable structures would either wholly or partially impair absorption of water into the soil. Soils around new development sites would be disturbed during construction; however, these areas would be replanted or would revegetate to varying degrees through natural succession.

Temporary localized increases in erosion and sedimentation would occur during construction. However, this problem would be minimized by avoiding construction in highly erodible areas and by using control structures. Careful design and engineering techniques would be used in those areas where soils are poorly suited to development.

Developed areas concentrate visitor usage. This concentration would result in more severe effects of compaction and erosion of soils. Although there is no way to evenly distribute visitor use to avoid such impacts, facilities would be designed to reduce the potential for soil erosion. The proposed plan would disperse development and uses over the entire area to minimize these effects.

Some areas of soil would be covered with fairly permanent surfacing material. Exact volumes of soils to be covered by development cannot be determined until more detailed design plans have been made. As much as 900 acres (364.4 ha) of soil could be disturbed by development, or 1.3 percent of the national recreation area's total acreage. This would be 400 acres (161.8 ha) more than existing conditions. The remaining soils would be protected through management zoning (e.g., development is limited in the natural zone).

There would be no adverse effects on prime or unique farmlands because they would either be used for agriculture under guidelines prepared by the Soil Conservation Service or otherwise protected.

### Alternative 1

Visitor facilities under alternative 1 would affect 500 acres (202.4 ha), or about 0.7 percent of the land in the recreation area. The impacts of development under alternative 1 on soils would be similar to those of the proposed plan, but on a smaller scale.

Assuming an average corridor width of 60 feet (18.29 meters) for roads, this alternative would affect 1,029.1 acres (416.6 ha) for 141.5 miles (228.2 km) of paved roads and 552.7 acres (223.8 ha) for 76 miles (122.6 km) of unpaved roads. The closing of 117 miles (188.7 km) of existing roads would allow these surfaces to be revegetated, either actively or through natural vegetation processes. This would affect 850.9 acres (344.5 ha).

The 8 percent of land farmed under special use permits by private individuals would probably be large fields planted with a single crop to minimize cost and maximize profit. The potential for soil erosion would be increased, although farmers and park managers would cooperate with the Soil Conservation Service to minimize any adverse effects. The process of natural vegetation succession would be allowed to continue on the remainder of previously farmed land. Soil erosion should be minimal.

Impacts resulting from trail development and reconstruction would be the same as under the proposed plan.

There would be no adverse effect on prime and unique farmlands because they would either be used for agriculture or otherwise protected.

### Alternative 2

Development of visitor and support facilities would affect 1,900 acres (769.2 ha) or 2.7 percent of the recreation area's 69,629 acres (28,172 ha).

Assuming an average corridor width of 60 feet (18.29 meters) for roads, alternative 2 would affect 1,294.5 acres (524.1 ha) for 178 miles (287.1

km) of paved roads and 741.8 acres (300 ha) of unpaved roads. Fifty-four miles (87.1 km) of existing roads would be closed and would be revegetated or allowed to revegetate through succession. This would affect 392.7 acres (159 ha).

The extensive development under alternative 2 would require measures to minimize soil erosion and sedimentation in the streams and river. Because most of the development would be completed by private interests under contract to the National Park Service, the erosion mitigation measures would be carefully delineated by the National Park Service in contracts.

Sixty percent of the national recreation area would be available for farming, timbering, and mining, with an increased potential for impacts on soils. The extent would not be known until proposals from private interests for leasing the land were received by the National Park Service.

The impact from trail development would be the same as under the proposed plan.

Any development on prime or unique farmlands would result in the irretrievable loss of these lands.

## WATER RESOURCES

### Proposed Plan

Two sources of groundwater have been used in the national recreation area. Water for visitor use would probably be obtained from existing and new wells. The effects on groundwater are not known. The water would be returned to the environment after passing through a wastewater treatment system; however, it would probably not recharge the aquifer from which it was taken. The U.S. Geological Survey in 1973 estimated the median water-yielding capability of aquifers in Pike and Monroe counties at 26-50 gallons per minute. The Delaware River Basin Commission advised the Park Service (April 12, 1977) that it foresaw no problems using wells to obtain water at the developed areas within the national recreation area, since the only groundwater problems in the area are downstream from Delaware Water Gap and would not affect aquifers within the national recreation area. In any case, the actions of the Park Service will comply with section 2.20 of the Water Code, Delaware River Basin, which provides that "projects that withdraw underground waters shall be planned and operated in such a manner as will reasonably safeguard the present and future public interest in the affected water resources."

The surface water supply is somewhat seasonal, as indicated by waterfalls that tend to run low in autumn. The Delaware River flow is fairly stable because it is regulated by a number of dams outside the recreation area but within the watershed. The proposed levels of visitor use and development would have negligible effects on water supplies.

## Alternative 1

As described under the proposed plan, development would not have a long-term adverse effect on water quality. Some erosion and siltation could result from construction, but the effects should be minor and temporary in nature. There would be no additional effects from agricultural activities.

## Alternative 2

Adverse effects could result from greater development and resource utilization activities, including runoff from impermeable surfaces and chemical runoff from fertilizers. Adverse impacts could be mitigated by construction techniques and farming practices.

The water quality could be adversely affected by runoff from active mining in the recreation area. The National Park Service would closely monitor any mining activity to minimize the potential of this occurring.

## FLOODPLAINS

### Proposed Plan

Floodplain delineation studies show that the flood elevation is approximately 40 feet above the bed of the Delaware River near Tocks Island. The floodplain includes approximately 2,000 acres, as shown on the Topography and Floodplain map (based on Anderson-Nichols 1973 and Department of Housing and Urban Development flood hazard boundary maps). Where information was lacking, elevations from the opposite side of the river were used.

The proposed plan would put only minimal development such as trails, picnic areas, boat ramps, and parking lots in the floodplain (see General Development map). These facilities would not displace appreciable quantities of water or enlarge the floodplain. Approximately 267 acres (108 ha) of vegetation would be disturbed in the floodplain. The actions proposed by this plan would conform to the regulations of the Delaware River Basin Commission and floodplain management guidelines for implementing EO 11988.

All developments proposed for location in the floodplain are for recreational use of the Delaware River. Facilities such as boat ramps and river swimming beaches cannot be located outside the floodplain and still serve their intended purposes.

The trails in the floodplain could be located elsewhere, but that would not provide the same experience that is available near the river. Trails in the floodplain would also provide a hiking/biking opportunity on relatively level terrain, which less mobile visitors could enjoy.

The removal of vegetation in the watershed or the floodplain could decrease retention of water and increase the size of flood flows and the size of the floodplain. Impacts on natural and aesthetic values could result from altering the vegetative communities characteristic of the floodplain. The proposed plan would result in very little disturbance of vegetation higher up in the watershed, but most streams flowing to the Delaware River originate outside the national recreation area, and development beyond the jurisdiction of the National Park Service could affect flood flows.

Recreation facilities located in floodplains would not be usable if and when they were flooded, which is estimated to occur only a few days per year. Also, parking lots, boat ramps, trails, or structures located in or near the floodplain could be damaged by flooding, requiring additional funds for repair or cleanup. Impacts of the proposed plan on the floodplain would be of short duration and would be insignificant to the floodplain and to recreation resources of the national recreation area.

#### Alternative 1

Development in the floodplain would amount to 110 acres (44.5 ha) under alternative 1. The facilities are minimal, and any new facilities would be designed to withstand floods. As described under the proposed plan, the specific developed areas would be surveyed for wetlands, and mitigation measures would be considered in the design process.

#### Alternative 2

Under alternative 2 development in the floodplain would total 545 acres (220.6 ha). The development would be more substantial (for example, beachhouses and campsites) than under alternative 1 and would be more costly to repair in the event of flood damage. The facilities would be designed to withstand minor flooding. The areas would be surveyed for wetlands, and if possible, these areas would be avoided. Potential development would likely result in a large irretrievable and irreversible loss of floodplains and wetlands.

### VEGETATION

#### Proposed Plan

The protection of key habitat areas, such as river islands, forest areas and wetlands, and prime or unique farmlands, would maintain the quality and diversity of vegetation types in the national recreation area.

The reconstruction of 38.75 miles (62.5 km) of existing roads would have a minimal effect on natural vegetation. Most of the effects would be confined to very early successional (weed) stages along road cuts and ditches; this would not constitute a significant impact on vegetation.

The impacts of building trails cannot be assessed by vegetation type because exact routes would not be selected until the next stage of planning. Building trails on abandoned roads would have no significant impact for the same reason that rebuilding roads would not. Building of 185 miles (596.7 km) of new trails would disturb 157 acres (63.6 ha) of vegetation. These trails would not affect the vegetation types most affected by other development, but the impacts would be spread over many types of vegetation.

Building trails along the Delaware River would disturb land in or near the floodplain, including cleared land, old fields, and river bottoms or wet areas. The impact on these vegetation types would not be significant. Vegetation in river bottoms or wet areas is not unique; its ecological value comes from a high level of diversity and interspersed vegetation types (edge effect), which creates a variety of habitats for animals. Except for clearing, the effects would primarily cause a reduction of grasses and forbs in the understory, but the entire system would not be affected.

The construction of buildings and parking areas would result in the loss of some vegetation. Because no development would occur in unique vegetation types, and because a relatively small amount of land would be developed, the overall effect of facility development on natural vegetation and associated wildlife habitat would be minimal. Use of developed areas would result in trampled vegetation, compacted soils, and increased erosion, especially in high visitor use areas. The degree of adverse impacts associated with increased visitor use would be minimized by careful site design and by dispersing visitor activity and use areas.

No plant species protected under the Endangered Species Act of 1973 are known to occur in the national recreation area. The area is within the range of the small whorled pogonia (Isotria medeoloides), but no specimens have been located. The spreading globe flower (Trollius laxus var. laxus) is under review to determine its status.

No developments or improvements to existing developments would be undertaken in areas where listed endangered or threatened species are believed to occur until required studies were completed or until it was determined that such development or improvement would have no adverse effect on the species or its habitat.

### Alternative 1

Development under alternative 1 would have a net effect on 500 acres (202.4 ha). Any new developed areas would be surveyed for endangered or threatened flora.

Natural processes would be allowed on 86 percent of the national recreation area lands, resulting in the eventual return of climax community conditions. Natural vegetative processes would be interrupted on 14 percent of the lands. Hedgerows would be maintained to the extent

possible through agreements with private farmers and landowners, but they could not be guaranteed.

The closing of 117 miles (188.7 km) of existing roads would allow natural vegetative succession to continue uninterrupted. The reconstruction of 35.25 miles (56.9 km) of road would have a minimal net effect on vegetation of the area. Trail developments and effects would be the same as those described under the proposed plan.

## Alternative 2

Development would affect 1,900 acres (769.2 ha), or 1,400 acres (566.4 ha) more than existing conditions. Natural processes would be allowed on 30 percent of the lands, resulting in the eventual return of climax communities. Natural vegetative processes would be interrupted on 70 percent of the lands.

As under the proposed plan, the areas to be affected would be surveyed for endangered or threatened plant species and their habitat.

Concentrated visitor use around developed areas would adversely affect vegetation because of trampling and soil compaction. These impacts would be difficult to mitigate because use cannot be easily dispersed within developed areas and the economics of commercial development require larger, more concentrated developments.

Fifty-four miles (87.1 km) of existing roads would be closed and revegetated or allowed to revegetate through natural succession.

The reconstruction of 44.25 miles (71.3 km) of roads would have a minimal effect on vegetation. Trail development impacts would be the same as those described for the proposed plan.

## WILDLIFE AND FISHERIES

### Proposed Plan

Management zoning and vegetation management would help ensure the continuation of habitat diversity for the abundant and diverse wildlife populations of the area

The construction of buildings, roads, parking areas, and trails would result in some loss of habitat and displacement of wildlife, but the overall effect would be negligible. Increased protection and management of key habitat areas would compensate for other habitat losses.

Wildlife management and habitat manipulation would result in natural successional processes being inhibited. Cooperation between the National Park Service and the states for continued management and regulation of hunting and fishing would help maintain wildlife and fish populations at healthy levels.

Monitoring would ensure that water quality remained high and fishery habitats would continue to be enhanced. The construction of new river-related facilities would result in little loss of fishing habitat and in short-term impacts on water quality in the immediate area of construction. The overall adverse effect on the river corridor's fisheries would be negligible.

No new development or improvement to a development would be undertaken in areas where federally listed endangered or threatened species might occur until required studies were completed and it was determined that such activities would have no adverse effect. (Endangered or threatened wildlife species that could exist in the area are listed in table 12 in the "Affected Environment" section.)

### Alternative 1

The continuation of natural processes on 85 percent of the national recreation area lands would limit habitat diversity over the long term. This would have corresponding effects on forest wildlife populations, causing a reduction in the deer herd, as well as habitat loss for grouse and woodcock. Turkey populations would probably increase. Changes in bird species would occur as the forest matured and old trees died. Farm game species such as rabbits, pheasants, and doves could decline as a result of old-field succession and the loss of cultivated areas.

As described under the proposed plan, no development would take place until the area was surveyed for threatened or endangered species and their habitat.

Fishery and wildlife management would continue to be a cooperative effort between the National Park Service and the states.

### Alternative 2

Greater development would reduce most wildlife habitat, with corresponding adverse effects on wildlife populations. Present habitat diversity would continue on national recreation area lands managed for agriculture, forestry, and natural processes, but the percentage of land available for wildlife would be significantly reduced.

The farmland cultivated under contract to the National Park Service would probably be planted in crops with maximum cash yield and minimum investment (that is, large fields planted with a single crop). The preferred crops would not provide the diversity of scenic vistas or suitable wildlife habitat.

As described under the proposed plan, no development would take place until the area was surveyed for threatened or endangered species and their habitat. Fishery and wildlife management would continue to be a cooperative effort between the National Park Service, New Jersey, and Pennsylvania.

## AIR QUALITY

### Proposed Plan

The region is classified as a nonattainment area for photochemical oxidants (in excess of standards) and as an attainment area for other pollutants, according to the Environmental Protection Agency's regional office in Philadelphia. The area is also listed as class II according to the Clean Air Act of 1977 in regards to major stationary sources of air pollution.

Increased emissions due to higher visitor use would not result in any significant deterioration of air quality in the national recreation area, and the area's class II standards would not be violated.

### Alternative 1

The level of development under alternative 1 would not cause significant deterioration in the area's air quality during the construction phase. The impact of increased visitation on air quality would be negligible.

### Alternative 2

The extensive development under alternative 2 would have a slight but temporary effect on air quality during construction. Increased visitation would also have a slight effect on air quality; however, the area's air quality would remain well within the standards established by the Environmental Protection Agency and the Clean Air Act.

## ENERGY CONSUMPTION

### Proposed Plan

Energy consumption would increase with implementation of the proposed plan. Gasoline use would rise because of more nonresident visitors driving to and within the area. However, the proposed organization of administrative and maintenance facilities could reduce travel by NPS staff and thus decrease gasoline consumption. Closing roads and facilities would reduce long-term energy usage, and NPS energy consumption would be further reduced through ongoing energy conservation programs and energy-efficient designs for new development, incorporating alternative energy sources wherever practicable.

### Alternative 1

Energy consumption would remain about the same as under present conditions. Some savings would be realized by building a new maintenance facility at the Zimmerman farm.

## Alternative 2

Increased visitation and park operations would result in greater energy consumption. This increase would be partially offset by the use of private shuttle buses.

## MINERAL RESOURCES

The effects on mineral resources cannot be determined at this time. Substantial additional research on existing mineral resources would be necessary to determine the impacts of any mining proposals. However, any mining activity would result in an irretrievable and irreversible loss of those resources.

## EFFECTS ON CULTURAL RESOURCES

### ARCHEOLOGICAL RESOURCES

#### Proposed Plan

The total number and significance of archeological resources within the national recreation area is unknown. However, at least 10 of the known archeological sites appear to meet the criteria for listing on the National Register of Historic Places (see appendix D). The primary effect of implementing the proposed plan would be to increase the level of protection for these and other archeological resources in the recreation area. Specifically training personnel to recognize the value of archeological resources would enable the staff to further protect these resources. Additional archeological surveys and research would provide information for the preservation of prehistoric information in undiscovered sites and would generally increase the body of scientific knowledge of human history in the Delaware Water Gap area. There may be some loss of archeological resources due to an increase in development activities, visitor use, and agricultural activities.

Possible adverse effects on archeological resources due to construction or ground-disturbing activities would be mitigated by evaluations, testing, or site-specific examinations prior to undertaking any actions.

Generally, implementation of the proposed plan would increase use throughout the recreation area. This would result in increased potential for vandalism of outlying archeological resources. However, the overall effect would be to increase the protection and preservation of archeological resources by increasing knowledge and awareness of sites.

#### Alternative 1

Less emphasis on interpretive programs could result in a limited public awareness of the significance of cultural resources. Vandalism, pothunting, and littering could increase if visitors were not fully aware of the significance of resources.

Archeological resources would be protected to the extent feasible from adverse actions under federal preservation laws, NPS "Management Policies," and all other NPS historic preservation policies and procedures.

#### Alternative 2

There would be a moderate to high potential for loss of archeological sites due to increased visitor use and extensive private development. Although requirements for surveys and excavations of archeological resources would remain the same as under the other alternatives, the high levels of ground disturbance for development, visitor use, and agricultural

activities would result in unusually high requirements for site evaluation to adequately determine the significance of resources. These determinations could not be adequately made with existing staffing levels.

## HISTORIC RESOURCES

### Proposed Plan

The adaptive use of historic structures for interpretation, education, administration, and housing would help ensure that the structures were maintained and preserved. The use of structures would reduce the potential for vandalism, and it would contribute to the maintenance of historic fabric. Certain uses could inadvertently result in the degradation of those aspects that made a structure historically significant. For example, increased visitation at historic structures would increase the possibility of minor vandalism, but this would be offset by a reduced potential for serious vandalism that could occur if the building was left vacant. There would be a loss of eight structures through benign neglect. Implementation of the historic leasing program would allow private capital to be used for the stabilization, preservation, and rehabilitation of historic structures, which otherwise might not be used.

Training staff personnel to recognize the value of historic properties and how to communicate those values to the public in interpretive programs would help reduce vandalism. Increased frequency of staff patrols due to increased development and visitor use would help reduce vandalism and would provide more protection of historic buildings.

Vegetation management at historic sites would help restore the historic appearance of the land. In some instances this would require exotic vegetation to be reintroduced or perpetuated. Efforts could have to be undertaken to keep these species from invading the surrounding areas and disrupting the natural ecology of adjacent areas.

The overall intent of the proposed plan would be to protect and preserve as many significant historic resources within the national recreation area as possible, limited by private sector interest and available funding.

### Alternative 1

The current limited funds to carry out adequate stabilization, preservation, restoration, or interpretation of cultural resources would continue. The preservation of properties on or considered eligible for the National Register could not be ensured. Fewer properties would be protected than under the proposed plan or alternative 2 because of less money for such activities. An unknown number of structures could be lost through benign neglect.

Inappropriate uses of historic structures, or allowing structures to remain vacant, could result in their physical damage or destruction.

Without a coordinated preservation program for cultural resources, those aspects that qualified or might qualify a specific resource for listing on the National Register could be lost.

## Alternative 2

Minimal protection of historic structures would be provided because of less emphasis on the preservation of historic buildings. Fewer structures would be preserved under alternative 2 than under the proposed plan because of less money. Some structures could lose more historic fabric if they were greatly modified to meet needs for concession/private development. Significant features could also be lost or affected due to increased visitor use of historic buildings. Potential for vandalism would also increase, even though there would be an increase in patrols. This would be a result of increased visitation with little additional protection of cultural resources. An unknown number of structures could be lost through benign neglect.

Historic structures along the two shuttle bus loops would be preserved. The adaptive use of certain other historic structures by non-NPS interests would ensure the protection of important exterior features, even though some interior historic fabric could be lost. New development could diminish the integrity of surrounding historic structures and the cultural scene. Any new development would have to be reviewed and approved by the National Park Service for compatibility under the guidelines for the leasing of historic structures (36 CFR 18).

Many of the minor features that contribute to the rural atmosphere of the recreation area, such as fences, hedgerows, and pastures, could be lost. This would be one result of efforts to consolidate smaller tracts of land into larger fields that would be more cost-effective to maintain in agricultural production.

Including historic structures within development complexes could result in the loss of revenues that the National Park Service would receive through the historic building leasing program. The use of historic structures for visitor services as part of a concession operation would result in that use falling under concession regulations. Unlike the proposed plan or alternative 1, money derived from leasing for this purpose could not be spent to maintain other historic structures.

Table 16: Summary of Major Environmental Consequences

Socioeconomic Effects	Proposed Plan	Alternative 1	Alternative 2
Private Landowners	Lands would be primarily acquired from willing sellers who would also receive relocation assistance, thus minimizing adverse effects on property owners.	Same as proposed plan.	Same as proposed plan.
Local Governments	<p>A greater number of visitors would increase demands on local law enforcement and emergency services.</p> <p>Acquisition of 1,814 acres would remove these lands from local tax rolls, but this adverse effect would be mitigated by payments in lieu of taxes (32 USC 1601 et seq.).</p>	<p>Demands on local law enforcement and emergency services would probably continue to be relatively low.</p> <p>Same as proposed plan.</p>	<p>More visitors would result in greater demands on local law enforcement agencies and health and safety services.</p> <p>Same as proposed plan.</p>
Local Economy			
- Tourism	Tourist expenditures would increase moderately and would represent input to the local economy for goods and services.	Present tourist trends and levels of tourist expenditures would remain.	Private concession developments within the NRA would likely create a focal point for increased tourism, and they could divert visitors from surrounding developments. Tourist expenditures would be the highest of any alternative.
- Development	Expenditures for capital improvements would be added to the local economy if local labor was used and materials were purchased within the region.	This would be the lowest federal expenditure for capital improvements, resulting in the least positive impacts to the local economy.	This alternative would have the highest construction employment and purchase of materials, resulting in the greatest positive effect on the local economy.
- Resource utilization	Leasing 45% of the NRA lands for agriculture and woodland management would benefit the local economy by allowing private interests to establish profit-oriented operations on NRA lands.	The present positive economic benefits of leasing 8% of the NRA lands for agriculture would continue. The resources of 85% of the NRA's lands would not be productively used.	Leasing 60% of NRA lands for resource utilization (agriculture, mining, and woodland management) would result in the greatest benefit to the local economy. Natural resources on these lands would be productively used.
Regional Development Trends	The potential for second-home development around the NRA would increase and would be supported by more day use facilities in the NRA.	Present regional development trends would continue.	A greater level of development within the NRA could encourage more regional second-home and recreation development.
<u>Visitor Use Effects</u>			
Visitor Experience	Developed areas would be dispersed throughout the NRA, thus reducing crowding and congestion as well as the potential for conflicts between user groups. Coordinated interpretive programs would provide more opportunities for visitors to learn about and to appreciate the park.	Facilities would continue to be inadequate for visitor enjoyment. Overcrowding of existing facilities would result in probable conflicts between various user groups. Existing programs would not give visitors a full understanding of what opportunities are available or a comprehensive understanding of the various significant natural and cultural features of the NRA.	The development of private concession areas would tend to attract one type of visitor group rather than a cross-section of the population. A lack of a comprehensive interpretive program would diminish the experience for some visitors.

Visitor Use Effects (cont.)	Proposed Plan	Alternative 1	Alternative 2
Public Recreational Opportunities	More public land would be available for free recreational activities. Facilities would be expanded for water-oriented activities (swimming, fishing) and land-based activities (hiking, picnicking). Between 85% and 92% of the area would be available for hunting.	More public land would be available for free recreational activities; however, limited development would restrict the diversity of activities. The NRA would have less appeal to a cross-section of visitors. Between 85% and 93% of the area would be available for hunting.	Public recreational opportunities would be limited to two sites, thus restricting the variety of free activities. Activities at private concession developments would be available, but visitors would have to pay to participate in them. Some visitors would object to having to pay to use public lands. Providing safety zones around developed areas would allow between 60% and 90% of the area to be open to hunting.
Overnight Use	More opportunities would be provided for backcountry, canoe, family, and group camping plus lodging and possibly bed-and-breakfast operations in historic structures. More visitors could stay overnight in the recreation area.	No opportunities would be provided for backcountry camping, and there would be fewer canoe and family campsites compared to the proposed plan.	This alternative would provide the greatest variety of overnight opportunities in the park, by both the Park Service and private concessioners. Several private lodging developments could also be constructed, as well as recreation vehicle campgrounds.
<u>Effects on the Scenic Landscape</u>	Approximately 15% of the NRA lands would be used for agriculture, 30% for woodland management, 47% for natural environment, and 8% for development, recreation, and historic sites. The overall result would be to maintain the area's present scenic diversity, with its mix of natural and cultural landscapes.	Approximately 8% of the NRA lands would be maintained in agriculture, 85% would be allowed to return to natural conditions, and 7% would be open for development, recreation, and historic sites. Because natural processes would be allowed on the majority of the lands, the area's scenic diversity would be lost over the long term: Fields would revert to forests, historic farms would be lost, and the contrasts between open fields, early successional vegetative communities, and mature forests would disappear.	Approximately 30% of the NRA lands would be used for agriculture and mining, 30% for woodland management, 30% for natural environment, and 10% for development, recreation and historic sites. The NRA's present scenic diversity in terms of open fields and succeeding vegetational communities would be maintained, but mining activities and a greater level of development could adversely affect the overall scenic diversity. The need for cost-effective agricultural operations would probably result in small fields being merged into larger fields for more economical farming.
<u>Effects on Natural Resources</u>			
Soils	Development of visitor facilities would result in a net effect on 900 acres. Impacts from agricultural activities (soil erosion) would occur on 15% of the NRA lands, which would be twice the current effect.	Development of visitor facilities would affect 500 acres. Continued impacts of agriculture (soil erosion) would occur on 8% of the NRA lands.	Development of visitor facilities would result in a net effect on 1,900 acres. Effects due to resource utilization activities (soil erosion) would occur on 30% of the NRA lands, four times the current effect.
Vegetation	Natural processes would be allowed on approximately 47% of NRA lands, resulting in the eventual return of stable climax communities. Natural processes would be interrupted on the remaining lands because of development, agriculture, or woodland management.	Natural processes would be allowed on 85% of NRA lands, resulting in the eventual return of climax community conditions. Natural vegetative processes would be interrupted on 15% of the lands.	Natural processes would be allowed on 30% of the lands, resulting in the eventual return of climax communities. Natural vegetative processes would be interrupted on 70% of the lands.

Effects on Natural Resources (cont.)	Proposed Plan	Alternative 1	Alternative 2
Prime or Unique Farmlands	No adverse effect because prime or unique farmlands would either be used for agriculture or otherwise protected.	Same as the proposed plan.	Any development on prime or unique farmlands would result in the irretrievable and irreversible loss of these lands.
Floodplains and Wetlands	No adverse effects.	No adverse effects.	Development could cause the the irretrievable and irreversible loss of floodplains and wetlands.
Wildlife	Landscape management activities would enhance wildlife habitat, resulting in larger populations, particularly game species.	Continuation of natural processes on 85% of the NRA lands would eventually limit habitat diversity, with corresponding effects on wildlife populations. Deer, rabbit, grouse, and woodcock populations would be adversely affected because of a loss of ecotones; forest species (bear turkey) would benefit.	Greater development would reduce wildlife habitat, with corresponding adverse effects on all wildlife populations. Present habitat diversity would continue on NRA lands managed for agriculture, forestry, and natural purposes.
Mineral Resources	No effect.	No effect.	Use of mineral resources would result in their irreversible and irretrievable loss, which would be offset by their use for economic activities.
Air Quality	No additional effect because the NRA is already classified as a class II area. Prescribed management burns would temporarily degrade air quality.	No additional effect.	No additional effect.
<b>Effects on Cultural Resources</b>			
Archeological Resources	Archeological resources would be protected through surveys and increased patrols; educational and interpretive programs would inform both staff and visitors about the fragility and importance of resources. A few archeological resources could be lost because of increased visitation and development activities.	Protection levels of archeological resources would remain the same as now, with potential loss of some resources due to vandalism.	A major level of archeological excavation, and some loss of sites, would result from higher levels of development.
Historic Resources	Increased protection would be provided to cultural resources through NPS and lessee preservation treatment, occupancy, and interpretation/use of historic structures. Eight historic structures would be lost through benign neglect.	Fewer historic structures would be protected than under the proposed plan because of less money and fewer programs for preservation/use of historic buildings. More than eight historic structures could be lost through benign neglect.	Minimal protection of historic structures would be provided because of less money for historic preservation and more NPS staff time required to administer concession contracts. An unknown number of structures could be lost through benign neglect.
	Increased visitation to some historic structures and adaptive use of others could result in the loss of some historic fabric.	A few more buildings than at present would be leased for adaptive use, resulting in some minor loss of historic fabric.	New development or use of structures, with NPS approval, could result in the loss of significant features because of high visitor use; also some features could be compromised in order to achieve development objectives.

## CONSULTATION AND COORDINATION

The general management planning effort for Delaware Water Gap National Recreation Area without the Tocks Island reservoir has been a protracted one. The first public meeting for the plan was held on March 29, 1975. Over the 10-year period many agencies, organizations, and individuals have been consulted. The following is a list of groups that have been contacted formally or informally during this effort.

### Federal Aencies and Officials

Members of the U.S. House of Representatives and Senate

Advisory Council on Historic Preservation

Council on Environmental Quality

Department of Agriculture

Forest Service

Soil Conservation Service

Department of the Army, Corps of Engineers

New York, New York

Philadelphia, Pennsylvania

Department of Commerce

National Oceanic and Atmospheric Administration

Department of Health and Human Services

Department of the Interior

Fish and Wildlife Service

Geological Survey

Department of Transportation

Federal Highway Administration

Environmental Protection Agency

Interstate Commerce Commission

### Federal-State Agencies

Delaware River Basin Commission

Delaware River Joint Toll Bridge Commission

### New Jersey State Agencies

Department of Community Affairs

Division of State and Regional Planning

Department of Environmental Protection

Division of Environmental Quality

Division of Fish, Game, and Wildlife

Division of Water Resources

Office of New Jersey Heritage

Department of Transportation

### New York State Agencies

Department of Environmental Conservation  
Department of Transportation

### Pennsylvania State Agencies

Department of Environmental Resources  
Department of Transportation  
Fish Commission  
Game Commission  
Historical and Museum Commission

### Regional Agencies

Delaware Valley Regional Planning Commission  
Economic Development Council of Northeast Pennsylvania  
Four County Task Force  
Tri-State Regional Planning Commission

### Local Agencies

Lehigh-Northampton Counties, Pennsylvania, Joint Planning Commission  
Monroe County, Pennsylvania, County Commissioners  
Northampton County, Pennsylvania, County Commissioners  
Pike County, Pennsylvania, County Commissioners  
Sussex County, New Jersey  
    Board of Chosen Freeholders  
    Office of the County Planning Director  
Warren County, New Jersey  
    Board of Chosen Freeholders  
    Planning Board

### Citizens Group

Appalachian Mountain Club  
Appalachian Trail Conference  
Delaware River Shad Fishermen's Association  
Delaware Valley Conservation Association  
Environmental Defense Fund  
Friends of the Earth  
Izaak Walton League  
International Snowmobile Industry Association  
National Park and Conservation Association  
Natural Resources Defense Council  
New Jersey Conservation Foundation  
New York-New Jersey Trail Conference  
The Parks Project, Inc.

Pocono Mountains Vacation Bureau  
Save-the-Delaware Coalition  
Sierra Club  
Trout Unlimited, North Jersey Chapter  
Water Resources Association of the Delaware River Basin





## APPENDIX A: LEGISLATION

### Public Law 87-328

September 27, 1961  
[H. J. Res. 225]

#### JOINT RESOLUTION

To create a regional agency by Intergovernmental compact for the planning, conservation, utilization, development, management, and control of the water and related natural resources of the Delaware River Basin, for the improvement of navigation, reduction of flood damage, regulation of water quality, control of pollution, development of water supply, hydroelectric energy, fish and wildlife habitat, and public recreational facilities, and other purposes, and defining the functions, powers, and duties of such agency.

*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled,*

#### PART I

#### COMPACT

Delaware River  
Basin Compact.

Whereas the signatory parties recognize the water and related resources of the Delaware River Basin as regional assets vested with local, State, and National interests, for which they have a joint responsibility; and

Whereas the conservation, utilization, development, management, and control of the water and related resources of the Delaware River Basin under a comprehensive multipurpose plan will bring the greatest benefits and produce the most efficient service in the public welfare; and

Whereas such a comprehensive plan administered by a basinwide agency will provide effective flood damage reduction; conservation and development of ground and surface water supply for municipal, industrial, and agricultural uses; development of recreational facilities in relation to reservoirs, lakes, and streams; propagation of fish and game; promotion of related forestry, soil conservation, and watershed projects; protection and aid to fisheries dependent upon water resources; development of hydroelectric power potentialities; improved navigation; control of the movement of salt water; abatement and control of stream pollution; and regulation of stream flows toward the attainment of these goals; and

Whereas decisions of the United States Supreme Court relating to the waters of the basin have confirmed the interstate regional character of the water resources of the Delaware River Basin, and the United States Corps of Engineers has in a prior report on the Delaware River Basin (House Document 179, Seventy-third Congress, second session) officially recognized the need for an interstate agency and the economies that can result from unified development and control of the water resources of the basin; and

Whereas the water resources of the basin are presently subject to the duplicating, overlapping, and uncoordinated administration of some forty-three State agencies, fourteen interstate agencies, and nineteen Federal agencies which exercise a multiplicity of powers and duties resulting in a splintering of authority and responsibilities; and

Whereas the joint advisory body known as the Interstate Commission on the Delaware River Basin (INCodel), created by the respective commissions or Committee on Interstate Cooperation of the States of Delaware, New Jersey, New York, and Pennsylvania, has on the basis of its extensive investigations, surveys, and studies concluded that regional development of the Delaware River Basin is feasible, advisable, and urgently needed; and has recommended that an interstate compact with Federal participation be consummated to this end; and

Whereas the Congress of the United States and the executive branch of the Government have recognized the national interest in the Delaware River Basin by authorizing and directing the Corps of Engineers, Department of the Army, to make a comprehensive survey and report on the water and related resources of the Delaware River Basin, enlisting the technical aid and planning participation of many Federal, State, and municipal agencies dealing with the waters of the basin, and in particular the Federal Departments of Agriculture, Commerce, Health, Education, and Welfare, and Interior, and the Federal Power Commission; and

Whereas some twenty-two million people of the United States at present live and work in the region of the Delaware River Basin and its environs, and the government, employment, industry, and economic development of the entire region and the health, safety, and general welfare of its population are and will continue to be vitally affected by the use, conservation, management, and control of the water and related resources of the Delaware River Basin; and

Whereas demands upon the waters and related resources of the basin are expected to mount rapidly because of the anticipated increase in the population of the region projected to reach thirty million by 1980 and forty million by 2010, and because of the anticipated increase in industrial growth projected to double by 1980; and

Whereas water resources planning and development is technical, complex, and expensive, and has often required fifteen to twenty years from the conception to the completion of a large dam and reservoir; and

Whereas the public interest requires that facilities must be ready and operative when needed, to avoid the catastrophe of unexpected floods or prolonged drought, and for other purposes; and

Whereas the Delaware River Basin Advisory Committee, a temporary body constituted by the Governors of the four basin States and the mayors of the cities of New York and Philadelphia, has prepared a draft of an interstate-Federal compact for the creation of a basin agency, and the signatory parties desire to effectuate the purposes thereof: Now therefore

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the United States hereby consents to, and joins the States of Delaware, New Jersey, and New York and the Commonwealth of Pennsylvania in, the following compact:*

#### ARTICLE 1

##### SHORT TITLE, DEFINITIONS, PURPOSE AND LIMITATIONS

Section 1.1 Short title. This Act shall be known and may be cited as the Delaware River Basin Compact.

1.2 Definitions. For the purposes of this compact, and of any supplemental or concurring legislation enacted pursuant thereto, except as may be otherwise required by the context:

(a) "Basin" shall mean the area of drainage into the Delaware River and its tributaries, including Delaware Bay;

(b) "Commission" shall mean the Delaware River Basin Commission created and constituted by this compact;

\* \* \* \* \*

## ARTICLE 2

### ORGANIZATION AND AREA

Section 2.1 Commission Created. The Delaware River Basin Commission is hereby created as a body politic and corporate, with succession for the duration of this compact, as an agency and instrumentality of the governments of the respective signatory parties.

2.2 Commission Membership. The commission shall consist of the Governors of the signatory states, ex officio, and one commissioner to be appointed by the President of the United States to serve during the term of office of the President.

\* \* \* \* \*

## Article 15

\* \* \* \* \*

### EFFECTUATION

15.2 (a) The President is authorized to take such action as may be necessary and proper, in his discretion, to effectuate the Compact and the initial organization and operation of the Commission thereunder.

(b) Executive departments and other agencies of the executive branch of the Federal Government shall cooperate with and furnish appropriate assistance to the United States member. Such assistance shall include the furnishing of services and facilities and may include the detailing of personnel to the United States member. Appropriations are hereby authorized as necessary for the carrying out of the functions of the United States member, including appropriations for the employment of personnel by the United States member.

15.3 Effective Date: This Act shall take effect immediately.

Approved September 27, 1961.

## AN ACT

Authorizing the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.

\* \* \* \* \*

Flood Control  
Act of 1962.

49 Stat. 1571.  
33 USC 701c.  
52 Stat. 1215.  
33 USC 701c-1.

## TITLE II—FLOOD CONTROL

SEC. 201. Section 3 of the Act approved June 22, 1936 (Public Law Numbered 738, Seventy-fourth Congress), as amended by section 2 of the Act approved June 28, 1938 (Public Law Numbered 761, Seventy-fifth Congress), shall apply to all works authorized in this title except that for any channel improvement or channel rectification project, provisions (a), (b), and (c) of section 3 of said Act of June 22, 1936, shall apply thereto, and except as otherwise provided by law: *Provided*, That the authorization for any flood control project herein adopted requiring local cooperation shall expire five years from the date on which local interests are notified in writing by the Department of the Army of the requirements of local cooperation, unless said interests shall within said time furnish assurances satisfactory to the Secretary of the Army that the required cooperation will be furnished.

58 Stat. 887.  
33 USC 701-1.

SEC. 202. The provisions of section 1 of the Act of December 22, 1944 (Public Law Numbered 534, Seventy-eighth Congress, second session), shall govern with respect to projects authorized in this Act, and the procedures therein set forth with respect to plans, proposals, or reports for works of improvement for navigation or flood control and for irrigation and purposes incidental thereto shall apply as if herein set forth in full.

Navigation im-  
provement proj-  
ects.  
Authorization.

SEC. 203. The following works of improvement for the benefit of navigation and the control of destructive floodwaters and other purposes are hereby adopted and authorized to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with the plans in the respective reports hereinafter designated and subject to the conditions set forth therein: *Provided*, That the necessary plans, specifications, and preliminary work may be prosecuted on any project authorized in this title with funds from appropriations hereafter made for flood control so as to be ready for rapid inauguration of a construction program: *Provided further*, That the projects authorized herein shall be initiated as expeditiously and prosecuted as vigorously as may be consistent with budgetary requirements: *And provided further*, That penstocks and other similar facilities adapted to possible future use in the development of hydroelectric power shall be installed in any dam authorized in this Act for construction by the Department of the Army when approved by the Secretary of the Army on the recommendation of the Chief of Engineers and the Federal Power Commission.

\* \* \* \* \*

## DELAWARE RIVER BASIN

The project for the comprehensive development of the Delaware River Basin, New York, New Jersey, Pennsylvania, and Delaware, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers, in House Document Numbered 522, Eighty-seventh Congress, at an estimated cost of \$192,400,000.

\* \* \* \* \*

SEC. 207. Section 4 of the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes", approved December 22, 1944, as amended by section 4 of the Flood Control Act of July 24, 1946, and by section 209 of the Flood Control Act of 1954, is hereby further amended to read as follows:

Public park and recreational facilities.

68 Stat. 1266.  
16 USC 460d.

"SEC. 4. The Chief of Engineers, under the supervision of the Secretary of the Army, is authorized to construct, maintain, and operate public park and recreational facilities at water resource development projects under the control of the Department of the Army, to permit the construction of such facilities by local interests (particularly those to be operated and maintained by such interests), and to permit the maintenance and operation of such facilities by local interests. The Secretary of the Army is also authorized to grant leases of lands, including structures or facilities thereon, at water resource development projects for such periods, and upon such terms and for such purposes as he may deem reasonable in the public interest: *Provided*, That leases to nonprofit organizations for park or recreational purposes may be granted at reduced or nominal considerations in recognition of the public service to be rendered in utilizing the leased premises: *Provided further*, That preference shall be given to Federal, State, or local governmental agencies, and licenses or leases where appropriate, may be granted without monetary considerations, to such agencies for the use of all or any portion of a project area for any public purpose, when the Secretary of the Army determines such action to be in the public interest, and for such periods of time and upon such conditions as he may find advisable: *And provided further*, That in any such lease or license to a Federal, State, or local governmental agency which involves lands to be utilized for the development and conservation of fish and wildlife, forests, and other natural resources, the licensee or lessee may be authorized to cut timber and harvest crops as may be necessary to further such beneficial uses and to collect and utilize the proceeds of any sales of timber and crops in the development, conservation, maintenance, and utilization of such lands. Any balance of proceeds not so utilized shall be paid to the United States at such time or times as the Secretary of the Army may determine appropriate. The water areas of all such projects shall be open to public use generally, without charge, for boating, swimming, bathing, fishing, and other recreational purposes, and ready access to and exit from such areas along the shores of such projects shall be maintained for general public use, when such use is determined by the Secretary of the Army not to be contrary to the public interest, all under such rules and regulations as the Secretary of the Army may deem necessary. No use of any area to which this section applies shall be permitted which is inconsistent with the laws for the protection of fish and game of the State in which such area is situated. All moneys received by the United States for leases or privileges shall be deposited in the Treasury of the United States as miscellaneous receipts."

Public use of water areas.

Protection of fish and game.

\* \* \* \* \*



Public Law 89-158  
89th Congress, H. R. 89  
September 1, 1965

## An Act

79 STAT. 612

To authorize establishment of the Delaware Water Gap National Recreation Area, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That in order to further the purposes of the joint resolution approved September 27, 1961 (re Delaware River Basin compact; 75 Stat. 688), and to provide, in a manner coordinated with the other purposes of the Tocks Island Reservoir project, for public outdoor recreation use and enjoyment of the proposed Tocks Island Reservoir and lands adjacent thereto by the people of the United States and for preservation of the scenic, scientific, and historic features contributing to public enjoyment of such lands and waters, the Secretary of the Interior is authorized, as herein provided, to establish and administer the Delaware Water Gap National Recreation Area, hereinafter referred to as the "area", as part of the Tocks Island Reservoir project, hereinafter referred to as "the project".

Delaware Water  
Gap National  
Recreation  
Area.  
Establishment.

SEC. 2. (a) The Secretary of the Army is authorized and directed to acquire, by such means as he may deem to be in the public interest, and as a part of his acquisition of properties for the project, lands and interests therein within the boundaries of the area, as generally depicted on the drawing entitled "Proposed Tocks Island National Recreation Area" dated and numbered September 1962, NRA-TI-7100, which drawing is on file in the Office of the National Park Service, Department of the Interior. In acquiring these lands, the Secretary of the Army may utilize such statutory authorities as are available to him for the acquisition of project lands: *Provided*, That the Secretary of the Army shall acquire no lands or interests in land by exchange for lands or interests in land in Federal ownership unless the latter are in the States of Pennsylvania, New Jersey, or New York. Periodically, and as soon as practicable after such lands and interests within the area are acquired, the Secretary of the Army shall transfer jurisdiction thereover to the Secretary of the Interior for the purposes of this Act.

Land acquisition  
authorization.

(b) Notwithstanding the provisions of subsection (a) of this section, the Secretary of the Interior is authorized, after consultation with appropriate public officials of the affected political subdivisions of the States of Pennsylvania or New Jersey, as the case may be, to designate not more than three hundred acres adjacent and contiguous to the Borough of Milford, Pennsylvania, and not more than one thousand acres in Sussex County, New Jersey, for omission from the Delaware Valley National Recreation Area and the lands so designated shall not be acquired for said national recreation area under authority of this Act.

(c) The Secretary of the Interior shall investigate, study, and report to the President and the Congress on the feasibility and usefulness of extending the boundaries of the Delaware Water Gap National Recreation Area to include, in whole or in part, that portion of Tocks Island Reservoir which lies upstream from the northern terminus of the national recreation area as shown on the map hereinbefore referred to and lands adjacent to said portion of said reservoir. No such extension of boundaries, however, shall be made until authorized by Act of Congress.

Report to the  
President and  
Congress.

(d) The beneficial owner, not being a corporation, of a freehold interest acquired before January 1, 1965, in improved residential property within the area to be acquired by the Secretary of the Army under authority of this Act, the continued use of which property for noncommercial residential purposes for a limited time will not, in the judgment of the Secretary of the Interior, unduly interfere with the development of public-use facilities for the national recreation area

Noncommercial  
residential  
occupancy.

"Improved residential property."

Publication in the Federal Register.

Boundary adjustments, publication in Federal Register.

and will not, in the judgment of the Secretary of the Army, unduly interfere with the operation of the Tocks Island Reservoir project, may retain a right of use and occupancy of such property for noncommercial residential purposes for, as said owner may elect, either (i) a period terminating upon his death or the death of his spouse, whichever occurs later, or (ii) a term of not more than twenty-five years: *Provided*, That in no case shall the period or term for which such right of use and occupancy is retained extend beyond the term of the feehold interest acquired by the United States. The price payable to the owner of such property shall be reduced by an amount equal to the value of the right retained. As used in this Act "improved residential property" means a single-family year-round dwelling, the construction of which was begun before January 21, 1963, which dwelling serves as the owner's permanent place of abode at the time of its acquisition by the United States, together with not more than three acres of land on which the dwelling and appurtenant buildings are located which land the Secretary of the Interior or the Secretary of the Army, as the case may be, finds is reasonably necessary for the owner's continued use and occupancy of the dwelling.

SEC. 3. (a) As soon as practicable after the date of enactment of this Act and following the transfer to the Secretary of the Interior by the Secretary of the Army of jurisdiction over those lands and interests therein within the boundary generally depicted on the drawing described in section 2 hereof which, in the opinion of the Secretary of the Interior, constitute an efficiently administrable unit, the Secretary of the Interior shall declare establishment of the area by publication of notice thereof in the Federal Register. Such notice shall contain a detailed description of the boundaries of the area which shall encompass, to the extent practicable, the lands and waters shown on said drawing. Prior to such establishment, the Secretary of the Interior shall administer such transferred lands and waters, consistent with the construction of the project, for purposes in contemplation of the establishment of the area pursuant to this Act.

(b) The Secretary of the Interior may subsequently make adjustments in the boundary of the area by publication of the amended description thereof in the Federal Register and acquire, by such means as he may deem to be in the public interest, including an exchange of excluded for included lands or interests therein with or without the payment or receipt of money to equalize values, additional lands and interests therein included in the area by reason of the boundary adjustment: *Provided*, That the area encompassed by such revised boundary shall not exceed the acreage included within the detailed boundary first described pursuant to this section.

(c) On lands acquired pursuant to this Act for recreation purposes, the Secretary of the Army, with the concurrence of the Secretary of the Interior, may permit the continuance of existing uses consistent with the purposes of this Act.

SEC. 4. In the administration of the area for the purposes of this Act, the Secretary of the Interior may utilize such statutory authorities relating to areas of the national park system and such statutory authorities otherwise available to him for the conservation, management, or disposal of vegetative, mineral, or fish or wildlife resources as he deems appropriate to carry out the purposes of this Act. To assure consistent and effective planning, development, and operation for all purposes of the project, the Secretary of the Interior and the Secretary of the Army shall coordinate the administration of their respective responsibilities in the project; and such administration shall be consistent with the joint resolution approved September 27, 1961 (re Delaware River Basin compact; 75 Stat. 688).

SEC. 5. In the administration of the area for the purposes of this Act, the Secretary of the Interior, subject to provisions of section 4 hereof, shall adopt and implement, and may from time to time revise, a land and water use management plan, which shall include specific provision for, in order of priority—

- (1) public outdoor recreation benefits;
- (2) preservation of scenic, scientific, and historic features contributing to public enjoyment;
- (3) such utilization of natural resources as in the judgment of the Secretary of the Interior is consistent with, and does not significantly impair, public recreation and protection of scenic, scientific, and historic features contributing to public enjoyment.

SEC. 6. The Secretary of the Interior shall permit hunting and fishing on lands and waters under his jurisdiction within the area in accordance with the applicable laws and regulations of the States concerned and of the United States. The Secretary of the Interior may designate zones where, and establish periods when, no hunting shall be permitted for reasons of public safety, wildlife management, administration, or public use and enjoyment not compatible with hunting, and may, in his plan for the area, provide areas for intensive fish and wildlife management, including public hunting and fishing, and shall issue appropriate regulations after consultation with appropriate officials of the States concerned. The Secretary of the Interior shall encourage such officials to adopt uniform regulations applicable to the whole of the Delaware Water Gap National Recreation Area.

Hunting and  
fishing.

SEC. 7. Nothing in this Act shall be construed to deprive any State or political subdivision thereof, of its right to exercise civil and criminal jurisdiction over the lands and waters within the area or of its right to tax persons, corporations, franchises, or property on the lands and waters included in the area.

SEC. 8. There are hereby authorized to be appropriated to the Secretary of the Interior for the acquisition of lands and interests in land pursuant to the provisions of section 2 of this Act and for expenses incident thereto not more than \$37,412,000 which moneys shall be transferred to the Secretary of the Army. There are also authorized to be appropriated not more than \$18,200,000 for the cost of installing and constructing recreation facilities on the lands and interests in lands so acquired. The amounts herein authorized to be appropriated are supplemental to those authorized to be appropriated for the Tocks Island project and related facilities by the Flood Control Act of 1962 (76 Stat. 1182).

Appropriation.

Approved September 1, 1965.

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#### LEGISLATIVE HISTORY:

HOUSE REPORT No. 360 (Comm. on Interior & Insular Affairs).  
SENATE REPORT No. 598 (Comm. on Interior & Insular Affairs).  
CONGRESSIONAL RECORD, Vol. 111 (1965):

July 12: Considered and passed House.  
Aug. 13: Considered and passed Senate, amended.  
Aug. 17: House concurred in Senate amendment.



Public Law 91-282  
91st Congress, H. R. 15166  
June 19, 1970

## An Act

Authorizing additional appropriations for prosecution of projects in certain comprehensive river basin plans for flood control, navigation, and for other purposes.

\* \* \* \* \*

SEC. 5. (a) The project for comprehensive development of the Delaware River Basin, as authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 522, 87th Congress, by section 203 of the Flood Control Act of 1962 (76 Stat. 1182), is hereby modified to permit use of the head and water releases of Tocks Island Reservoir as an incident to a pumped storage hydroelectric power development project by applicant presently seeking approval to undertake such development before the Delaware River Basin Commission, subject to the provisions of this section and the pertinent provisions of the Delaware River Basin Compact and the Federal Power Act, including section 10(e) (16 U.S.C. 803(e)) providing for payment of annual charges to the United States: *Provided*, That the annual charges payable by applicant for use of the Tocks Island project by the aforesaid pumped storage development, including use of project head and water releases, shall be not less than \$1,000,000.

(b) The Secretary of the Interior shall insure that the planning and construction of the aforesaid pumped-storage project shall be undertaken in accordance with the conditions and requirements relating to Sunfish Pond and Kittatinny Mountain set forth in paragraph numbered (3) (A) of Resolution Numbered 68-12 adopted October 28, 1968, by the Delaware River Basin Commission: *Provided*, That the Federal Power Commission shall adopt, as part of any license to construct, operate, or maintain the aforesaid pumped-storage project, those requirements and conditions determined by the Secretary of the Interior to be necessary to insure conformance with the provisions of paragraph (3) (A) of such resolution: *Provided further*, That in no event shall the upper pool of the applicant's proposed pumped-storage project be located on land other than that owned by applicant on April 15, 1969.

\* \* \* \* \*

SEC. 11. This Act may be cited as the "River Basin Monetary Authorization and Miscellaneous Civil Works Amendments Act of 1970".

Approved June 19, 1970.

October 2, 1968  
[S 119]

## AN ACT

To provide for a National Wild and Scenic Rivers System, and for other purposes.

Wild and Scenic  
Rivers Act.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That (a) this Act may be cited as the "Wild and Scenic Rivers Act".

(b) It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declares that the established national policy of dam and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes.

(c) The purpose of this Act is to implement this policy by instituting a national wild and scenic rivers system, by designating the initial components of that system, and by prescribing the methods by which and standards according to which additional components may be added to the system from time to time.

National wild  
and scenic rivers  
system.

SEC. 2. (a) The national wild and scenic rivers system shall comprise rivers (i) that are authorized for inclusion therein by Act of Congress, or (ii) that are designated as wild, scenic or recreational rivers by or pursuant to an act of the legislature of the State or States through which they flow, that are to be permanently administered as wild, scenic or recreational rivers by an agency or political subdivision of the State or States concerned without expense to the United States, that are found by the Secretary of the Interior, upon application of the Governor of the State or the Governors of the States concerned, or a person or persons thereunto duly appointed by him or them, to meet the criteria established in this Act and such criteria supplementary thereto as he may prescribe, and that are approved by him for inclusion in the system, including, upon application of the Governor of the State concerned, the Allagash Wilderness Waterway, Maine, and that segment of the Wolf River, Wisconsin, which flows through Langlade County.

(b) A wild, scenic or recreational river area eligible to be included in the system is a free-flowing stream and the related adjacent land area that possesses one or more of the values referred to in section 1, subsection (b) of this Act. Every wild, scenic or recreational river in its free-flowing condition, or upon restoration to this condition, shall be considered eligible for inclusion in the national wild and scenic rivers system and, if included, shall be classified, designated, and administered as one of the following:

Eligibility for  
inclusion.

(1) Wild river areas—Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

(2) Scenic river areas—Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

(3) Recreational river areas—Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

SEC. 3 (a) The following rivers and the land adjacent thereto are hereby designated as components of the national wild and scenic rivers system:

National wild  
and scenic rivers  
components.

SEC. 4. (a) The Secretary of the Interior or, where national forest lands are involved, the Secretary of Agriculture or, in appropriate cases, the two Secretaries jointly shall study and from time to time submit to the President and the Congress proposals for the addition to the national wild and scenic rivers system of rivers which are designated herein or hereafter by the Congress as potential additions to such system; which, in his or their judgment, fall within one or more of the classes set out in section 2, subsection (b), of this Act; and which are proposed to be administered, wholly or partially, by an agency of the United States. Every such study and plan shall be coordinated with any water resources planning involving the same river which is being conducted pursuant to the Water Resources Planning Act (79 Stat. 244; 42 U.S.C. 1962 et seq.).

Each proposal shall be accompanied by a report, including maps and illustrations, showing among other things the area included within the proposal; the characteristics which make the area a worthy addition to the system; the current status of landownership and use in the area; the reasonably foreseeable potential uses of the land and water which would be enhanced, foreclosed, or curtailed if the area were included in the national wild and scenic rivers system; the Federal agency (which in the case of a river which is wholly or substantially within a national forest, shall be the Department of Agriculture) by which it is proposed the area be administered; the extent to which it is proposed that administration, including the costs thereof, be shared by State and local agencies; and the estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area as a component of the system. Each such report shall be printed as a Senate or House document.

Report, maps,  
etc.

Printing as  
Senate or House  
document.

(b) Before submitting any such report to the President and the Congress, copies of the proposed report shall, unless it was prepared jointly by the Secretary of the Interior and the Secretary of Agriculture, be submitted by the Secretary of the Interior to the Secretary of Agriculture or by the Secretary of Agriculture to the Secretary of the Interior, as the case may be, and to the Secretary of the Army, the Chairman of the Federal Power Commission, the head of any other affected Federal department or agency and, unless the lands proposed to be included in the area are already owned by the United States or have already been authorized for acquisition by Act of Congress, the Governor of the State or States in which they are located or an officer designated by the Governor to receive the same. Any recommendations or comments on the proposal which the said officials furnish the Secretary or Secretaries who prepared the report within ninety days of the date on which the report is submitted to them, together with the Secretary's or Secretaries' comments thereon, shall be included with the transmittal to the President and the Congress. No river or portion of any river shall be added to the national wild and scenic rivers system subsequent to enactment of this Act until the close of the next full session of the State legislature, or legislatures in case more than one

State is involved, which begins following the submission of any recommendation to the President with respect to such addition as herein provided.

(c) Before approving or disapproving for inclusion in the national wild and scenic rivers system any river designated as a wild, scenic or recreational river by or pursuant to an act of a State legislature, the Secretary of the Interior shall submit the proposal to the Secretary of Agriculture, the Secretary of the Army, the Chairman of the Federal Power Commission, and the head of any other affected Federal department or agency and shall evaluate and give due weight to any recommendations or comments which the said officials furnish him within ninety days of the date on which it is submitted to them. If he approves the proposed inclusion, he shall publish notice thereof in the Federal Register.

Publication in  
Federal Register.

Potential addi-  
tions, designa-  
tion.

SEC. 5. (a) The following rivers are hereby designated for potential addition to the national wild and scenic rivers system:

\* \* \*

(b) The Secretary of the Interior and, where national forest lands are involved, the Secretary of Agriculture shall proceed as expeditiously as possible to study each of the rivers named in subsection (a) of this section in order to determine whether it should be included in the national wild and scenic rivers system. Such studies shall be completed and reports made thereon to the President and the Congress, as provided in section 4 of this Act, within ten years from the date of this Act: *Provided, however*, That with respect to the Suwannee River, Georgia and Florida, and the Upper Iowa River, Iowa, such study shall be completed and reports made thereon to the President and the Congress, as provided in section 4 of this Act, within two years from the date of enactment of this Act. In conducting these studies the Secretary of the Interior and the Secretary of Agriculture shall give priority to those rivers with respect to which there is the greatest likelihood of developments which, if undertaken, would render them unsuitable for inclusion in the national wild and scenic rivers system.

Studies.

(c) The study of any of said rivers shall be pursued in as close cooperation with appropriate agencies of the affected State and its political subdivisions as possible, shall be carried on jointly with such agencies if request for such joint study is made by the State, and shall include a determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river should it be proposed for inclusion in the national wild and scenic rivers system.

(d) In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas, and all river basin and project plan reports submitted to the Congress shall consider and discuss any such potentials. The Secretary of the Interior and the Secretary of Agriculture shall make specific studies and investigations to determine which additional wild, scenic and recreational river areas within the United States shall be evaluated in planning reports by all Federal agencies as potential alternative uses of the water and related land resources involved.

SEC. 6. (a) The Secretary of the Interior and the Secretary of Agriculture are each authorized to acquire lands and interests in land within the authorized boundaries of any component of the national wild and scenic rivers system designated in section 3 of this Act, or hereafter designated for inclusion in the system by Act of Congress, which is administered by him, but he shall not acquire fee title to an average of more than 100 acres per mile on both sides of the river. Lands owned by a State may be acquired only by donation, and lands owned by an Indian tribe or a political subdivision of a State may not be acquired without the consent of the appropriate governing body thereof as long as the Indian tribe or political subdivision is following a plan for management and protection of the lands which the Secretary finds protects the land and assures its use for purposes consistent with this Act. Money appropriated for Federal purposes from the land and water conservation fund shall, without prejudice to the use of appropriations from other sources, be available to Federal departments and agencies for the acquisition of property for the purposes of this Act.

(b) If 50 per centum or more of the entire acreage within a federally administered wild, scenic or recreational river area is owned by the United States, by the State or States within which it lies, or by political subdivisions of those States, neither Secretary shall acquire fee title to any lands by condemnation under authority of this Act. Nothing contained in this section, however, shall preclude the use of condemnation when necessary to clear title or to acquire scenic easements or such other easements as are reasonably necessary to give the public access to the river and to permit its members to traverse the length of the area or of selected segments thereof.

(c) Neither the Secretary of the Interior nor the Secretary of Agriculture may acquire lands by condemnation, for the purpose of including such lands in any national wild, scenic or recreational river area, if such lands are located within any incorporated city, village, or borough which has in force and applicable to such lands a duly adopted, valid zoning ordinance that conforms with the purposes of this Act. In order to carry out the provisions of this subsection the appropriate Secretary shall issue guidelines, specifying standards for local zoning ordinances, which are consistent with the purposes of this Act. The standards specified in such guidelines shall have the object of (A) prohibiting new commercial or industrial uses other than commercial or industrial uses which are consistent with the purposes of this Act, and (B) the protection of the bank lands by means of acreage, frontage, and setback requirements on development.

(d) The appropriate Secretary is authorized to accept title to non-Federal property within the authorized boundaries of any federally administered component of the national wild and scenic rivers system designated in section 3 of this Act or hereafter designated for inclusion in the system by Act of Congress and, in exchange therefor, convey to the grantor any federally owned property which is under his jurisdiction within the State in which the component lies and which he classifies as suitable for exchange or other disposal. The values of the properties so exchanged either shall be approximately equal or, if they are not approximately equal, shall be equalized by the payment of cash to the grantor or to the Secretary as the circumstances require.

(e) The head of any Federal department or agency having administrative jurisdiction over any lands or interests in land within the authorized boundaries of any federally administered component of the national wild and scenic rivers system designated in section 3 of this Act or hereafter designated for inclusion in the system by Act of Congress is authorized to transfer to the appropriate secretary jurisdic-

tion over such lands for administration in accordance with the provisions of this Act. Lands acquired by or transferred to the Secretary of Agriculture for the purposes of this Act within or adjacent to a national forest shall upon such acquisition or transfer become national forest lands.

(f) The appropriate Secretary is authorized to accept donations of lands and interests in land, funds, and other property for use in connection with his administration of the national wild and scenic rivers system.

(g) (1) Any owner or owners (hereinafter in this subsection referred to as "owner") of improved property on the date of its acquisition, may retain for themselves and their successors or assigns a right of use and occupancy of the improved property for noncommercial residential purposes for a definite term not to exceed twenty-five years or, in lieu thereof, for a term ending at the death of the owner, or the death of his spouse, or the death of either or both of them. The owner shall elect the term to be reserved. The appropriate Secretary shall pay to the owner the fair market value of the property on the date of such acquisition less the fair market value on such date of the right retained by the owner.

(2) A right of use and occupancy retained pursuant to this subsection shall be subject to termination whenever the appropriate Secretary is given reasonable cause to find that such use and occupancy is being exercised in a manner which conflicts with the purposes of this Act. In the event of such a finding, the Secretary shall tender to the holder of that right an amount equal to the fair market value of that portion of the right which remains unexpired on the date of termination. Such right of use or occupancy shall terminate by operation of law upon tender of the fair market price.

(3) The term "improved property", as used in this Act, means a detached, one-family dwelling (hereinafter referred to as "dwelling"), the construction of which was begun before January 1, 1967, together with so much of the land on which the dwelling is situated, the said land being in the same ownership as the dwelling, as the appropriate Secretary shall designate to be reasonably necessary for the enjoyment of the dwelling for the sole purpose of noncommercial residential use, together with any structures accessory to the dwelling which are situated on the land so designated.

SEC. 7. (a) The Federal Power Commission shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act (41 Stat. 1063), as amended (16 U.S.C. 791a et seq.), on or directly affecting any river which is designated in section 3 of this Act as a component of the national wild and scenic rivers system or which is hereafter designated for inclusion in that system, and no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration. Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to, developments below or above a wild, scenic or recreational river area or on any stream tributary thereto which will not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area on the date of approval of this Act. No department or agency of the United States shall recommend authorization of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration, or request appropriations to begin

Right of use and occupancy.

"Improved property."

Water resources projects, restrictions.

construction of any such project, whether heretofore or hereafter authorized, without advising the Secretary of the Interior or the Secretary of Agriculture, as the case may be, in writing of its intention so to do at least sixty days in advance, and without specifically reporting to the Congress in writing at the time it makes its recommendation or request in what respect construction of such project would be in conflict with the purposes of this Act and would affect the component and the values to be protected by it under this Act.

49 Stat. 863.  
16 USC 791a.

(b) The Federal Power Commission shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act, as amended, on or directly affecting any river which is listed in section 5, subsection (a), of this Act, and no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river might be designated, as determined by the Secretary responsible for its study or approval—

Publication in  
Federal Register.

(i) during the five-year period following enactment of this Act unless, prior to the expiration of said period, the Secretary of the Interior and, where national forest lands are involved, the Secretary of Agriculture, on the basis of study, conclude that such river should not be included in the national wild and scenic rivers system and publish notice to that effect in the Federal Register, and

(ii) during such additional period thereafter as, in the case of any river which is recommended to the President and the Congress for inclusion in the national wild and scenic rivers system, is necessary for congressional consideration thereof or, in the case of any river recommended to the Secretary of the Interior for inclusion in the national wild and scenic rivers system under section 2(a)(ii) of this Act, is necessary for the Secretary's consideration thereof, which additional period, however, shall not exceed three years in the first case and one year in the second.

Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to, developments below or above a potential wild, scenic or recreational river area or on any stream tributary thereto which will not invade the area or diminish the scenic, recreational, and fish and wildlife values present in the potential wild, scenic or recreational river area on the date of approval of this Act. No department or agency of the United States shall, during the periods hereinbefore specified, recommend authorization of any water resources project on any such river or request appropriations to begin construction of any such project, whether heretofore or hereafter authorized, without advising the Secretary of the Interior and, where national forest lands are involved, the Secretary of Agriculture in writing of its intention so to do at least sixty days in advance of doing so and without specifically reporting to the Congress in writing at the time it makes its recommendation or request in what respect construction of such project would be in conflict with the purposes of this Act and would affect the component and the values to be protected by it under this Act.

(c) The Federal Power Commission and all other Federal agencies shall, promptly upon enactment of this Act, inform the Secretary of the Interior and, where national forest lands are involved, the Secretary of Agriculture, of any proceedings, studies, or other activities within their jurisdiction which are now in progress and which affect or may affect any of the rivers specified in section 5, subsection (a), of this Act. They shall likewise inform him of any such proceedings, studies, or other activities which are hereafter commenced or resumed before they are commenced or resumed.

(d) Nothing in this section with respect to the making of a loan or grant shall apply to grants made under the Land and Water Conservation Fund Act of 1965 (78 Stat. 897; 16 U.S.C. 4601-5 et seq.).

SEC. 8. (a) All public lands within the authorized boundaries of any component of the national wild and scenic rivers system which is designated in section 3 of this Act or which is hereafter designated for inclusion in that system are hereby withdrawn from entry, sale, or other disposition under the public land laws of the United States.

(b) All public lands which constitute the bed or bank, or are within one-quarter mile of the bank, of any river which is listed in section 5, subsection (a), of this Act are hereby withdrawn from entry, sale, or other disposition under the public land laws of the United States for the periods specified in section 7, subsection (b), of this Act.

SEC. 9. (a) Nothing in this Act shall affect the applicability of the United States mining and mineral leasing laws within components of the national wild and scenic rivers system except that—

Mining and  
mineral leasing  
laws.

(i) all prospecting, mining operations, and other activities on mining claims which, in the case of a component of the system designated in section 3 of this Act, have not heretofore been perfected or which, in the case of a component hereafter designated pursuant to this Act or any other Act of Congress, are not perfected before its inclusion in the system and all mining operations and other activities under a mineral lease, license, or permit issued or renewed after inclusion of a component in the system shall be subject to such regulations as the Secretary of the Interior or, in the case of national forest lands, the Secretary of Agriculture may prescribe to effectuate the purposes of this Act;

(ii) subject to valid existing rights, the perfection of, or issuance of a patent to, any mining claim affecting lands within the system shall confer or convey a right or title only to the mineral deposits and such rights only to the use of the surface and the surface resources as are reasonably required to carrying on prospecting or mining operations and are consistent with such regulations as may be prescribed by the Secretary of the Interior or, in the case of national forest lands, by the Secretary of Agriculture; and

(iii) subject to valid existing rights, the minerals in Federal lands which are part of the system and constitute the bed or bank or are situated within one-quarter mile of the bank of any river designated a wild river under this Act or any subsequent Act are hereby withdrawn from all forms of appropriation under the mining laws and from operation of the mineral leasing laws including, in both cases, amendments thereto.

Regulations issued pursuant to paragraphs (i) and (ii) of this subsection shall, among other things, provide safeguards against pollution of the river involved and unnecessary impairment of the scenery within the component in question.

(b) The minerals in any Federal lands which constitute the bed or bank or are situated within one-quarter mile of the bank of any river which is listed in section 5, subsection (a) of this Act are hereby withdrawn from all forms of appropriation under the mining laws during the periods specified in section 7, subsection (b) of this Act. Nothing contained in this subsection shall be construed to forbid prospecting or the issuance or leases, licenses, and permits under the mineral leasing laws subject to such conditions as the Secretary of the Interior and, in the case of national forest lands, the Secretary of Agriculture find appropriate to safeguard the area in the event it is subsequently included in the system.

Administration.

SEC. 10. (a) Each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protecting its esthetic, scenic, historic, archeologic, and scientific features. Management plans for any such component may establish varying degrees of intensity for its protection and development, based on the special attributes of the area.

(b) Any portion of a component of the national wild and scenic rivers system that is within the national wilderness preservation system, as established by or pursuant to the Act of September 3, 1964 (78 Stat. 890; 16 U.S.C., ch. 23), shall be subject to the provisions of both the Wilderness Act and this Act with respect to preservation of such river and its immediate environment, and in case of conflict between the provisions of these Acts the more restrictive provisions shall apply.

(c) Any component of the national wild and scenic rivers system that is administered by the Secretary of the Interior through the National Park Service shall become a part of the national park system, and any such component that is administered by the Secretary through the Fish and Wildlife Service shall become a part of the national wildlife refuge system. The lands involved shall be subject to the provisions of this Act and the Acts under which the national park system or national wildlife system, as the case may be, is administered, and in case of conflict between the provisions of these Acts, the more restrictive provisions shall apply. The Secretary of the Interior, in his administration of any component of the national wild and scenic rivers system, may utilize such general statutory authorities relating to areas of the national park system and such general statutory authorities otherwise available to him for recreation and preservation purposes and for the conservation and management of natural resources as he deems appropriate to carry out the purposes of this Act.

(d) The Secretary of Agriculture, in his administration of any component of the national wild and scenic rivers system area, may utilize the general statutory authorities relating to the national forests in such manner as he deems appropriate to carry out the purposes of this Act.

(e) The Federal agency charged with the administration of any component of the national wild and scenic rivers system may enter into written cooperative agreements with the Governor of a State, the head of any State agency, or the appropriate official of a political subdivision of a State for State or local governmental participation in the administration of the component. The States and their political subdivisions shall be encouraged to cooperate in the planning and administration of components of the system which include or adjoin State- or county-owned lands.

SEC. 11. (a) The Secretary of the Interior shall encourage and assist the States to consider, in formulating and carrying out their comprehensive statewide outdoor recreation plans and proposals for financing assistance for State and local projects submitted pursuant to the Land and Water Conservation Fund Act of 1965 (78 Stat. 897), needs and opportunities for establishing State and local wild, scenic and recreational river areas. He shall also, in accordance with the authority contained in the Act of May 28, 1963 (77 Stat. 49), provide technical assistance and advice to, and cooperate with, States, political subdivisions, and private interests, including nonprofit organizations, with respect to establishing such wild, scenic and recreational river areas.

16 USC 1131  
note.

State or local  
governments, co-  
operative agree-  
ments.

State and local  
projects, financial  
assistance.

16 USC 460f-4  
note.

16 USC 460f-  
460f-3.

(b) The Secretaries of Agriculture and of Health, Education, and Welfare shall likewise, in accordance with the authority vested in them, assist, advise, and cooperate with State and local agencies and private interests with respect to establishing such wild, scenic and recreational river areas.

SEC. 12. (a) The Secretary of the Interior, the Secretary of Agriculture, and heads of other Federal agencies shall review administrative and management policies, regulations, contracts, and plans affecting lands under their respective jurisdictions which include, border upon, or are adjacent to the rivers listed in subsection (a) of section 5 of this Act in order to determine what actions should be taken to protect such rivers during the period they are being considered for potential addition to the national wild and scenic rivers system. Particular attention shall be given to scheduled timber harvesting, road construction, and similar activities which might be contrary to the purposes of this Act.

Administration  
and management  
policies, review.

(b) Nothing in this section shall be construed to abrogate any existing rights, privileges, or contracts affecting Federal lands held by any private party without the consent of said party.

(c) The head of any agency administering a component of the national wild and scenic rivers system shall cooperate with the Secretary of the Interior and with the appropriate State water pollution control agencies for the purpose of eliminating or diminishing the pollution of waters of the river.

SEC. 13. (a) Nothing in this Act shall affect the jurisdiction or responsibilities of the States with respect to fish and wildlife. Hunting and fishing shall be permitted on lands and waters administered as parts of the system under applicable State and Federal laws and regulations unless, in the case of hunting, those lands or waters are within a national park or monument. The administering Secretary may, however, designate zones where, and establish periods when, no hunting is permitted for reasons of public safety, administration, or public use and enjoyment and shall issue appropriate regulations after consultation with the wildlife agency of the State or States affected.

Fish and wild-  
life, jurisdiction.

(b) The jurisdiction of the States and the United States over waters of any stream included in a national wild, scenic or recreational river area shall be determined by established principles of law. Under the provisions of this Act, any taking by the United States of a water right which is vested under either State or Federal law at the time such river is included in the national wild and scenic rivers system shall entitle the owner thereof to just compensation. Nothing in this Act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws.

Water rights,  
compensation.

(c) Designation of any stream or portion thereof as a national wild, scenic or recreational river area shall not be construed as a reservation of the waters of such streams for purposes other than those specified in this Act, or in quantities greater than necessary to accomplish these purposes.

(d) The jurisdiction of the States over waters of any stream included in a national wild, scenic or recreational river area shall be unaffected by this Act to the extent that such jurisdiction may be exercised without impairing the purposes of this Act or its administration.

(e) Nothing contained in this Act shall be construed to alter, amend, repeal, interpret, modify, or be in conflict with any interstate compact made by any States which contain any portion of the national wild and scenic rivers system.

(f) Nothing in this Act shall affect existing rights of any State, including the right of access, with respect to the beds of navigable streams, tributaries, or rivers (or segments thereof) located in a national wild, scenic or recreational river area.

Easements and  
rights-of-way.

(g) The Secretary of the Interior or the Secretary of Agriculture, as the case may be, may grant easements and rights-of-way upon, over, under, across, or through any component of the national wild and scenic rivers system in accordance with the laws applicable to the national park system and the national forest system, respectively: *Provided*, That any conditions precedent to granting such easements and rights-of-way shall be related to the policy and purpose of this Act.

Easement as  
contribution,  
claim and allow-  
ance.  
76 Stat. 1034;  
66A Stat. 410.

SEC. 14. The claim and allowance of the value of an easement as a charitable contribution under section 170 of title 26, United States Code, or as a gift under section 2522 of said title shall constitute an agreement by the donor on behalf of himself, his heirs, and assigns that, if the terms of the instrument creating the easement are violated, the donee or the United States may acquire the servient estate at its fair market value as of the time the easement was donated minus the value of the easement claimed and allowed as a charitable contribution or gift.

Definitions.

SEC. 15. As used in this Act, the term—

(a) "River" means a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes.

(b) "Free-flowing", as applied to any river or section of a river, means existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway. The existence, however, of low dams, diversion works, and other minor structures at the time any river is proposed for inclusion in the national wild and scenic rivers system shall not automatically bar its consideration for such inclusion: *Provided*, That this shall not be construed to authorize, intend, or encourage future construction of such structures within components of the national wild and scenic rivers system.

(c) "Scenic easement" means the right to control the use of land (including the air space above such land) for the purpose of protecting the scenic view from the river, but such control shall not affect, without the owner's consent, any regular use exercised prior to the acquisition of the easement.

Appropriations.

SEC. 16. There are hereby authorized to be appropriated such sums as may be necessary, but not more than \$17,000,000, for the acquisition of lands and interests in land under the provisions of this Act.

Approved October 2, 1968.

Public Law 92-575  
92nd Congress, H.R. 13396  
October 27, 1972

86 Stat. 1250

An Act

To authorize an increase in land acquisition funds for the Delaware Water Gap National Recreation Area, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 8 of the Act of September 1, 1965 (79 Stat. 612, 614), is amended by deleting the figure "37,412,000" in the first sentence and substituting in lieu thereof the figure "\$65,000,000."

Delaware River  
Water Gap  
National  
Recreation  
Area.  
Appropriation.

Sec. 2. That section 2 of the Act of September 1, 1965 (79 Stat. 612) is amended by adding at the end thereof the following: "Provided, further, That whenever an owner of property elects to retain a right of use and occupancy pursuant to this Act, such owner shall be deemed to have waived any benefits or rights under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (84 Stat. 1894)."

Public Law 95-625  
NATIONAL PARKS AND RECREATION ACT  
November 10, 1978

92 Stat. 3467

Title III  
DELAWARE WATER GAP  
NATIONAL RECREATION AREA

SEC. 316. Section 2(a) of the Act entitled, "An Act to authorize establishment of the Delaware Water Gap National Recreation Area, and for other purposes," approved September 1, 1965 (79 Stat. 612) is amended by adding the following at the end thereof: "Beginning on the date of the enactment of the National Parks and Recreation Act of 1978, the Secretary of the Interior is authorized to acquire for purposes of the recreation area established under this Act all lands and interests therein within the exterior boundaries of the area depicted on the drawing referred to in this subsection (including any lands within such exterior boundaries designated for acquisition by the Secretary of the Army in connection with the project referred to in this subsection). In exercising such authority, the Secretary of the Interior may permit the retention of rights of use and occupancy in the same manner as provided in the case of acquisitions by the Secretary of the Army under subsection (d). On the date of enactment of the National Parks and Recreation Act of 1978, the acquisition authorities of any other Federal agency contained in this subsection shall terminate and the head of any other Federal agency shall transfer to the Secretary of the Interior jurisdiction over all lands and interests therein acquired by said agency under the authority of this Act, or any other authority of law which lands are within the exterior boundaries of the area depicted on the drawing referred to in this subsection. On the date of enactment of the National Parks and Recreation Act of 1978, all unexpended balances available to any other Federal agency for acquisition of land within the exterior boundaries referred to in the preceding sentence shall be transferred to the Secretary of the Interior to be used for such purposes. In carrying out his acquisition authority under this section the Secretary shall give priority to the following:

"(1) completion of acquisition of lands for which condemnation proceedings have been started pursuant to the authorization of the project referred to in this subsection:

"(2) acquisition of lands of beneficial owners, not being a corporation, who in the judgement of the Secretary would suffer hardship if acquisition of their lands were delayed;

"(3) acquisition of lands on which, in the judgement of the Secretary, there is imminent danger of development that would be incompatible with the purposes of the recreation area;

"(4) acquisition of lands of beneficial owners, not being a corporation, who are willing to sell their lands provided they are able to continue to use it for noncommercial residential purposes for a limited period of time which will not, on the judgement of the Secretary, unduly interfere with the development of public use facilities for such national recreation area, pursuant to the authorization for such area:

"(5) acquisition of scenic easements when, in the judgement of the Secretary, such easements are sufficient to carry out the purposes for which such national recreation area was authorized; and

"(6) acquisition of lands necessary to preserve the integrity of the recreation area."

SEC. 705. Section 3(a) of the Wild and Scenic Rivers Act is amended by adding the following new paragraph at the end thereof:

"(2) Delaware, New York, Pennsylvania and New Jersey.--The segment from the point where the river crosses the northern boundary of the Delaware Water Gap National Recreation Area to the point where the river crosses the southern boundary of such recreation area; to be administered by the Secretary of the Interior. For purposes of carrying out this Act with respect to the river designated by this paragraph, there are authorized to be appropriated such sums as may be necessary. Action required to be taken under subsection (b) of this section with respect to such segment shall be taken within one year from the date of enactment of this paragraph, except that, with respect to such segment, in lieu of the boundaries provided for in such subsection (b), the boundaries shall be the banks of the river. Any visitors facilities established for purposes of use and enjoyment of the river under the authority of the Act establishing the Delaware Water Gap National Recreation Area shall be compatible with the purposes of this Act and shall be located at an appropriate distance from the river."

## APPENDIX B: SUMMARY OF COMMENTS ON PREVIOUS DOCUMENTS

A Draft General Management Plan and Draft Environmental Statement were printed in September 1978, and an updating Addendum was printed in September 1980. These were distributed for public review in late October 1980. Approximately 1,900 sets of documents were distributed to local, state, and federal governmental agencies; to individuals and groups on the park's mailing list; and to others upon request.

Public comments were invited in three ways. First, written comments were accepted until January 15, 1981, an extension of the original deadline of December 15, 1980. Second, five public meetings were held November 17-21, 1980, in East Stroudsburg, Milford, and Philadelphia, Pennsylvania, and in Belvidere and Newton, New Jersey. Third, representatives of the planning team were available during the same week for informal consultation and discussion with representatives of local agencies and others at the headquarters of the national recreation area.

As of January 15, 1981, a total of 165 responses of all types had been received (discounting duplications, i.e., persons who commented at meetings and wrote a letter, or one person speaking at several public meetings and/or consultations). This resulted in a response level of around 9 percent.

Of the 90 percent who did not comment, the lack of response may be attributed to one or more of the following reasons:

- documents and proposals were thought to be adequate, and no comment was warranted

- points-of-view were represented by other commenters

- inconvenience of writing comments or attending public meetings

- apathy

- lack of trust in the responsiveness of the National Park Service

The issues and concerns expressed have been carefully evaluated in the revision of the proposed plan.

The following summary is organized into eight major topics. Within each topic the major concerns and issues raised are described.

Land Acquisition/Leases--Approximately 40 responses addressed land acquisition/leases, with slightly over half requesting that existing leaseholders be allowed to remain for their lifetimes or until their properties were needed for public development. Additional comments addressed specific concerns, which were supported by only one or two other commenters.

Natural Resource Management--Thirty-five responders were concerned about natural resources. Most of these referred to the effects of development and visitor use on wildlife and wildlife habitat. Twenty responders were concerned about the possible loss of wildlife habitat if agricultural acreage was reduced. Several people cited hunting, fishing, and trapping as appropriate recreational uses in the area. Pennsylvania and New Jersey wildlife agencies reiterated the states' authority to manage wildlife in the recreation area.

Cultural Resource Management--Cultural resources were addressed by 30 commenters. Seven commenters requested that the Shawnee-Minisink archeological site be placed within the national recreation area as a site on the National Register of Historic Places. Continuity in agricultural use and preservation of the cultural landscape were addressed five times. Eleven people wanted various structures and sites stabilized or preserved.

Visitor Use and Interpretation--Approximately 100 responses related to visitor use and interpretation. Fourteen commenters wanted more family camping, family canoe camping, or family tent camping areas in the national recreation area. Fifteen people opposed a registration or quota system for canoeing. Eight comments addressed the need for a quiet-water zone. Sixteen responses supported hang-gliding.

Development--Sixty-five responses addressed matters relating to development, and most referred to specific facilities needed for particular activities. Seven responses favored the provision of ferryboat crossings of the Delaware River; nine responses called for more canoeing and canoe-camping facilities or suggested adjustments; and six responses objected to any new staff housing.

Appalachian Trail--Only six responses specifically addressed the Appalachian Trail, and they were concerned about overall management and primitive camping.

Regional Impacts of the National Recreation Area--Approximately 20 responses addressed concerns about the effects of the national recreation area and its use on the surrounding region. Eight responses were about the impact of visitor traffic on local and already congested roads, and about the impact on adjacent land uses.

General Comments--About 50 responses raised issues and concerns not suitably covered under the previous topics. Approximately 25 percent of these responses wanted a citizens advisory council to be established to guide national recreation area management.

About a dozen commenters said that the draft plan and its proposals lacked imagination or authenticity or that the plan did not address either the uniqueness of the area or the wishes of most of the public. Conversely, nine responses expressed overall support for the plan and the NPS efforts. Nine responders thought the plan did not sufficiently address the provisions of the National Wild and Scenic Rivers Act as they relate to the Middle Delaware River.

## APPENDIX C: DEVELOPMENT SITES WITHIN THE FLOODPLAIN AND THE POTENTIAL DAM POOL

Table C-1: Development Sites in the Foodplain

<u>Proposed Plan (42 sites total)</u>	<u>Alternative 1 (26 sites total)</u>	<u>Alternative 2 (47 sites total)</u>
6. Resort Point	8. Shawnee	6. Resort Point
8. Shawnee	11. Smithfield	8. Borough of Delaware Water Gap Railroad Station
11. Smithfield	12. Hialeah Airpark	9. Shawnee
12. Hialeah Airpark	17. Bushkill Access	11. Hialeah Picnic Area
13. Ferry Landing	18. Toms Creek Picnic Area	12. Smithfield
18. Cold Spring	19. Eschback Launch	13. Hialeah Airpark
20. Bushkill Access	22. Shapnack Access	14. Ferry Landing
21. Valley View	23. Hornbeck	18. Miller-Hagen
22. Toms Creek Picnic area	25. Childs Picnic Area	19. Cold Spring Beach
25. Eshback Beach and Launch	29. Dingmans Launch	20. Bushkill
28. Shapnack Access	33. Tocks Airpark	21. Bushkill Access
29. Hornbeck	36. Milford Beach	22. Valley View
30. Hornbeck Creek Access	40. Kittatinny Point	23. Toms Creek Picnic Area
32. Childs Picnic Area	41. Dunfield Creek	26. Eshback Beach and Launch
36. Dingmans Launch	43. Copper Mine Inn	29. Shapnack Access
37. Dry Brook	44. Pahaquarry Copper Mines	30. Hornbeck
41. Indian Point	45. Poxono	31. Hornbeck Creek Access
42. Tocks Airpark	46. Depew Recreation Site	33. Childs Picnic Area
46. Milford Beach	49. Hamilton	37. Dingmans Launch
51. Kittatinny Point	52. Rivers Bend	38. Dry Brook
52. Dunfield Creek	53. Peters	42. Indian Point
54. Copper Mine Inn	56. Fort John	43. Tocks Airpark
55. Dimmicks Launch	57. Buttermilk Falls	47. Milford Beach
56. Pahaquarry Copper Mines	58. Walpack Inn	52. Kittatinny Point
57. Poxono	59. New Jersey District Office	53. Dunfield Creek
58. Depew Recreation Site	64. Sandyston Canoe Campsites	55. Copper Mine Inn
61. Hamilton		56. Dimmicks Launch
64. Rivers Bend		57. Pahaquarry Copper Mines
66. Peters		58. Poxono
67. Smith Ferry		59. Depew Recreation Site
68. Buck		62. Hamilton
72. Fort John		65. Rivers Bend
75. Buttermilk Falls		66. Stevens Point
76. Walpack Inn		67. Peters
77. New Jersey District Office		68. Smith Ferry Beach
82. Sandyston Beach		69. Buck
83. Kettle Holes Campground		73. Fort John
84. Sandyston Canoe Campsites		75. Buttermilk Falls
86. Namanock		76. Walpack Inn
88. Minisink		77. New Jersey District Office
89. White Brook		82. Sandyston Beach
93. Millville Access		83. Kettle Holes Campground
		84. Sandyston Canoe Campsites
		86. Namanock
		88. Minisink
		89. White Rock
		93. Millville Beach

Note: Numbers refer to the General Development maps.

Table C-2: Development Sites in the Potential Dam Pool

Proposed Plan (56 sites total)	Alternative 1 (35 sites total)	Alternative 2 (55 sites total)
10. Hialeah Picnic Area	10. Hialeah Picnic Area	11. Hialeah Picnic Area
11. Smithfield	11. Smithfield	12. Smithfield
12. Hialeah Airpark	12. Hialeah Airpark	13. Hialeah Airpark
13. Ferry Landing	15. Sand Hill NRA Entrance	14. Ferry Landing
16. Sand Hill NRA Entrance	16. Bushkill	17. Sand Hill NRA Entrance
17. Miller-Hagen	17. Bushkill Access	18. Miller-Hagen
18. Cold Spring	18. Toms Creek Picnic Area	19. Cold Spring Beach
19. Bushkill	19. Eshback Launch	20. Bushkill
20. Bushkill Access	20. Pocono Access	21. Bushkill Access
21. Valley View	22. Shapnack Access	22. Valley View
22. Toms Creek Picnic Area	23. Hornbeck	23. Toms Creek Picnic Area
25. Eshback Beach and Launch	26. Dingmans Falls	26. Eshback Beach and Launch
26. Pocono Access	27. Dingmans Campground	27. Pocono Access
28. Shapnack Access	28. Pennsylvania District Office	29. Shapnack Access
29. Hornbeck	29. Dingmans Launch	30. Hornbeck
30. Hornbeck Creek Access	30. Zimmerman Farm	31. Hornbeck Creek Access
34. Dingmans Campground	32. Shanna House	35. Dingmans Campground
35. Pennsylvania District Office	33. Tocks Airpark	36. Pennsylvania District Office
36. Dingmans Launch	36. Milford Beach	37. Dingmans Launch
37. Dry Brook	43. Copper Mine Inn	38. Dry Brook
38. Zimmerman Farm	44. Pahaquarry Copper Mines	39. Zimmerman Farm
40. Shanna House	45. Poxono	41. Shanna House
41. Indian Point	46. Depew Recreation Site	42. Indian Point
42. Tocks Airpark	48. Van Campens Glen	43. Tocks Airpark
46. Milford Beach	49. Hamilton	47. Milford Beach
47. Roberts Lane	52. Rivers Bend	48. Roberts Lane
54. Copper Mine Inn	53. Peters	55. Copper Mine Inn
55. Dimmicks Launch	56. Fort John	56. Dimmicks Launch
56. Pahaquarry Copper Mines	57. Buttermilk Falls	57. Pahaquarry Copper Mines
57. Poxono	58. Walpack Inn	58. Poxono
58. Depew Recreation Site	59. New Jersey District Office	59. Depew Recreation Site
60. Van Campens Glen	60. Walpack Valley Environmental Education Center	61. Van Campens Glen
61. Hamilton	61. Walpack Center	62. Hamilton
64. Rivers Bend	64. Sandystone Canoe Campsites	65. Rivers Bend
65. Stevens Point	66. Old Mine Road Youth Hostel	66. Stevens Point
66. Peters		67. Peters
67. Smith Ferry		68. Smith Ferry Beach
68. Buck		69. Buck
72. Fort John		73. Fort John
73. Chado Farm		74. Flatbrook Valley Overlook
74. Flatbrook Valley Overlook		75. Buttermilk Falls
75. Buttermilk Falls		76. Walpack Inn
76. Walpack Inn		77. New Jersey District Office
77. New Jersey District Office		78. Walpack Valley Environmental Education Center
78. Walpack Valley Environmental Education Center		79. Walpack Center/Flatbrook Valley
79. Walpack Center		82. Sandyston Beach
82. Sandyston Beach		83. Kettle Holes Campground
83. Kettle Holes Campground		84. Sandyston Canoe Campsites
84. Sandyston Canoe Campsites		86. Namanock
86. Namanock		87. Old Mine Road Youth Hostel
87. Old Mine Road Youth Hostel		88. Minisink
88. Minisink		89. White Brook
89. White Brook		92. Millville
92. Millville		93. Millville Beach
93. Millville Access		94. Quicks Island Access
94. Quicks Island Access		

Note: Numbers refer to the General Development maps.

## APPENDIX D: CULTURAL RESOURCES

Studies were conducted in late 1975 and early 1977 to refine the results of cultural resource surveys conducted between 1956 and 1974 and to determine the eligibility of particular resources for the National Register of Historic Places. The following listing indicates the status of the studies and the resources within Delaware Water Gap National Recreation Area.

### ARCHEOLOGICAL RESOURCES

In recent years the Delaware Valley has emerged as an archeologically significant area. The stratified floodplain provides opportunities for studying the cultural sequence of the region. The first survey was undertaken in 1915. Since then, many studies have been accomplished and are continuing.

In March 1977 W. Fred Kinsey, III, of Franklin and Marshall College and Herbert C. Kraft of Seton Hall University were consulted on the status of archeological sites in the recreation area and the eligibility of any sites for nomination to the National Register of Historic Places. To date the 12 sites listed below appear to meet National Register criteria. In the future additional sites may be identified.

Sites wholly in federal ownership will be nominated by the National Park Service, while those that are in nonfederal ownership (partially or wholly) or that are outside the national recreation area will be nominated by the appropriate state preservation officer. Federal ownership is signified by F in the following site description; partial or entire nonfederal ownership by P.

The identified sites span Early Archaic through Late Woodland Indian occupation and the historic period. Some sites are 8,800 years old. Excavations have produced burials, hearths, debris, pottery, stone tools, European trade items, and postmolds that identify longhouses and a sweat lodge.

#### Sites within the Recreation Area

Beisler (F)--Located on the knolls close to the Delaware River, this very productive site covers a large field. The span of occupation ranges from the Archaic through the historic.

Brodhead-Heller (F)--Located on the two lowest terraces about 30 feet above water level, this site yielded artifacts in pits dating from the Delaware Valley Archaic complex; Perkiomen and Orient components, as well as an unnamed component; Early, Middle, and Late Woodland components; and Tribal, among the minor.

Faucett (F)--This site is located on the lowest terrace of the floodplain near the riverbank, 23 feet above normal water level. There are 124 features relating to aboriginal occupations, including burials, hearth pits, disturbances, debris, and a wide range of artifacts--pottery, projectile points, stone tools, and an antler comb. The earliest occupation established was that of the Delaware Valley Archaic complex (radiocarbon dating of 3230 B.C./200 years), with several periods in between dated to the Tribal component (A.D. 1410/100 years). The sequence spans over 6,000 radiocarbon years.

Harry's Farm (F)--Located 27 feet above the normal flow level of the Delaware River, this site includes burials, refuse and storage areas, and artifacts ranging from the Transitional period to contact with Europeans. Ninety inches below plow level was found the first in situ evidence of Early Archaic occupation in New Jersey, which was radiocarbon dated to 7380 B.C./120 years.

Miller Field (F)--The excavation site is 800 feet from the Delaware River, at an elevation about 25 feet above normal flow level. Limited excavations have produced historic European trade items, a rarity in New Jersey archeology. Researchers have analyzed 140 features of the Orient, Perkiomen, and Koens-Crispin components of the Archaic stages as well as Early, Middle, and Late Woodland, and historic periods. Hundreds of postmolds enable identification of several longhouses and a sweat lodge. Important effigy faces also appeared in meaningful sequence.

Minisink (F)--This zone is comprised of several sites where a great many items of European manufacture have been found, as well as a general range of Indian artifacts. This area covers the ancestral home of the Minisink Indians and the site of the historic Minisink Village.

Pahaquarry (F)--On the lowest level were three house sites dating to the early phase of the Late Woodland, A.D. 1400.

Peters (F)--Situated on the Delaware River, this area has produced pottery shards as well as stone tools and projectile points of the Late Archaic and the Early, Middle, and Late Woodland periods.

Rosenkrans (F)--This site has the only Middlesex-Adena component artifacts in the Delaware Valley, relating to that culture when it flourished in the Ohio Valley. Radiocarbon dating puts this site at 610 B.C.

Zimmerman (F)--This site is on the lowest terrace of the floodplain and has yielded components spanning the entire time from Late Archaic to historic times. Of particular interest was the discovery of platform hearths.

### Sites Outside the National Recreation Area

The following sites have been recommended for nomination to the National Register of Historic Places by the appropriate state offices.

Shawnee-Minisink (P)--Located on the boundary of the national recreation area, this site has recently been worked by American University. It is one of the very few deeply stratified sites with Paleo-Indian components and a very early Archaic component. The site has a radiocarbon date of about 8700 B.C.

Zierdt (P)--Located north of the Milford-Montague toll bridge (US 206), this very important Paleo-Indian site has three culture-bearing strata that have produced a small assemblage of flake tools.

### HISTORIC RESOURCES

In compliance with Executive Order 11593 and 36 CFR 800, a historic resource inventory for Delaware Water Gap National Recreation Area has been completed. Properties identified as potentially eligible for inclusion on the National Register of Historic Places were described in the Environmental Assessment for Delaware Water Gap National Recreation Area (June 1976). Additional resources were submitted for consideration as part of the states' and public responses to that document. A total of 115 farm complexes, historic districts, and individual buildings and sites have been evaluated against National Register criteria. The state historic preservation officers were consulted about the master list in January 1977 and were met on site in February 1977 to establish concurrence regarding the final determination of eligibility, potential levels of significance, and methods of nomination. Descriptions of the properties were included in the 1978 Draft Environmental Statement and Draft General Management Plan. Subsequent meetings in March 1981 and November 1982 revised and reaffirmed the status of sites on the master list. Some additions and deletions were made accordingly.

Several eligible properties are still privately owned. In these instances, the respective state historic preservation officers will submit nomination forms. All other nominations will be submitted by the National Park Service.

### Properties on or Considered Eligible for the National Register of Historic Places

The following historic properties have been determined to be significant for architectural, cultural, or historical reasons. Each property that is already listed on the National Register is designated by an asterisk. The levels of significance are national, state or regional, and local. Those structures identified as private will be nominated to the National Register by the appropriate state historic preservation officer; all other structures are owned by the National Park Service.

Architecturally Significant Properties. The distinctive architecture of the Delaware Valley reflects an older community whose culture has been long and slow in developing. The scale is small, and effects are gained through the often good proportion of utilitarian orthodoxy and suitability to the site. Many structures contribute to the unique cultural blend that gives the upper valley its character. A representative sampling of 16 of these structures has been identified and evaluated. These cover a variety of construction materials--stone, brick, and wood--and offer a continuum of styles from early Dutch to Victorian, spanning the 18th and 19th centuries. Included in this list are houses, barns, and miscellaneous outbuildings.

\*Andrew Snable House, NJ--Local: A 1½-story stone house built ca. 1801. The house retains two original brick chimneys, rough stucco on the front, and some original details on the interior, including beaded wainscot, original fireplace, and corner winder stair.

\*Brodhead-Heller Farm (Wheat Plains), PA--Local: The mansion house of a late 18th century farm visually records its architectural evolution. The 2½-story frame house has a stone-back fireplace of the late 18th or early 19th century, and portions of original log walls. There are two front entrances: a Victorian door and a door dating from an earlier era.

\*Callahan House, PA--Local: Once reputed to be the oldest in Pike County, this 1½-story structure of Dutch Colonial style has detailing closer to that of the 1820s.

\*Captain Jacob Shoemaker House, PA--Local: This structure is one of the few remaining early stone houses on the river's Pennsylvania side. Dating from around 1810, it has retained more of its original structural details than any other building in the recreation area.

\*Cornelius Gunn House, NJ--Local: A 1½-story stone building, with regularly spaced front windows, constructed in the early 19th century. Some original woodworking and a particularly fine mantel exist from the 1830s.

\*DeRemer House (Millville Historic District), NJ--Local: A 2½-story main section of mid-19th century origin, and possibly an older wing, comprise the house proper. Victorian porches with distinctive columns and the wing's two eyebrow windows are interesting details.

\*Dingmans Dutch Reformed Church, PA--Local: This structure is the only significant example of Greek temple form on the Pennsylvania side of the recreation area. Extensively altered in the interior, the exterior remains relatively untouched. It was built ca. 1840.

Gersham Bunnell House, NJ (Private)--Local: A handsome example of a frame house in the classical tradition of the early 19th century, this structure retains most of the original features. The main section dates from ca. 1800, the larger addition ca. 1840.

Goldhardt House, PA--Local: Unique in the region, this two-story frame building reflects an Italian villa flavor, which is rather dramatic for the Delaware Valley.

\*John Michael Farm Complex, PA--Local: The complex includes an 1875 two-story frame house; a 1940 stone bungalow with frame addition; a pre-1875, one-room washhouse, originally used as a residence; a modular one-story house; a large frame barn; a frame wagon shed; a frame shed; a frame garage; and a cinder-block smokehouse. This farm reportedly dates to the 18th century, when a log cabin stood on the site.

\*Marie Zimmerman Complex, PA--Local: This fine, post-Victorian, county squire's summer residence is constructed of selected cleft fieldstone in varying shades. Associated with the house is one of the most attractive barns in the national recreation area. The gambrel roof, board-and-batten siding, and louvered, pointed-head cupola give this 1880 structure unusual design interest.

\*Peters House (Corner Gift Shop, Bushkill), PA--Local: The original section was reputedly built in 1746 and is a two-story frame structure with a fieldstone foundation. The 18th century wing is an almost perfect example of this period on the Pennsylvania side of the recreation area. Very few original interior elements are missing.

\*Richard Layton House, NJ--Local: A two-story rubble stone structure with an 1812 date stone. The walls are supposedly 21 inches thick. Two chimneys on the original building are brick, and the chimney on the later addition is stone. Most of the interior features are original--chair rails, wide-board floors, and several mantelpieces. The house is elegant, refined, and in pristine condition.

\*Schoonover Mountain House, PA--Local: Originally constructed as a farmhouse around 1860, this two-story plus basement frame building was enlarged with the advent of tourism in the valley. It retains many of the features and detailing of its origins and boasts finer detailing in its late Victorian remodeling than most other buildings in the area. Eight outbuildings accompany the main structure.

\*Shoemaker-Houck Farm, NJ--Local: The farm is part of a complete complex in stone and old timber, consisting of a house, barn, and combination ice/milk house. The house was built in 1822 of split coursed stone. A wing, with a kitchen added, may be even older. Delicate crown-molded mantels ornament three fireplaces. In other respects the house's architectural quality reflects some of the best work being done in the United States at that time.

\*Zion Lutheran Church, PA--Local: The church's dominant characteristic is its simplicity, and it is a good example of mid-19th century rural church architecture and construction. The structure is small, one-story, and constructed of handmade bricks in modified Greek Revival style.

The architectural significance of the following two houses has been recognized; however, they are not located within the boundaries of the national recreation area. It has been recommended that the appropriate state preservation officers nominate these buildings to the National Register:

Cuddeback-Pantis, NJ 521, Montague, New Jersey

Newcombe, River Road, north of Shawnee, Pennsylvania

Culturally Significant Properties. Fifteen structures or complexes and a national scenic trail have been identified because of their cultural associations. They are indicative of the variety of activities that occurred in the Delaware River valley, such as the homes, stores, and church in Walpack Center, and the houses, barns, and slate shanty at the Slateford Farm. These structures date from 1722 to the early 20th century. The trail is representative of early recreation and conservation activities. It is in this category that a sense of the past comes alive. As with other categories, a richness of types emerges that distinguishes the Delaware Valley's assemblage of resources.

\*Appalachian Trail, NJ--Local: In addition to its scenic qualities, a 400-foot-wide corridor of the Appalachian National Scenic Trail in New Jersey has been determined historic because of its significance in conservation and outdoor recreation and its long-standing history as a natural area. Established between 1922 and 1937, the trail is usually a simple footpath extending nearly 2,100 miles from Maine to Georgia.

Cold Spring Farm Springhouse, PA--Local: This unusual one-story stone structure measures 10 by 16 feet. It has a dammed pool and the remains of a waterwheel shaft and gears at the end of a sluiceway.

Dingmans Ferryhouse and Bridge, PA (Private)--Local: The two-story stone main house was constructed between 1805 and 1813, and although in a precarious state today, it still evokes the simple but elegant river-oriented home closely associated with the ferry and subsequent bridges. The present bridge is the fourth to occupy the spot. The double-span, iron-truss structure was erected shortly before 1900 and is of significance in industrial architecture.

Handler Farm, NJ (Private)--Local: The style of the farmhouse and its seven ancillary buildings is typical of the local domestic architecture in this part of the valley, and it accurately represents the lifestyle and culture of the region. The dramatic setting adds to the pastoral scene that is integral to the national recreation area.

Jane Sproul Klaer Aspinall Waterwheel House, PA (Private)--Local: This is a small stone structure that houses a waterwheel for generating electricity. It is reminiscent of the days before rural

electrification, when venturesome private parties put together their own hookups.

\*John Turn Farm Outbuildings, PA--Local: This complex is comprised of a limekiln, smokehouse, and weavehouse. The limekiln is representative of a construction-supplies facility that was essential to building the valley's first homes and outbuildings. The weavehouse and smokehouse are indicative of essential home industries.

\*Millville Village, NJ--Local: Millville Village is complex of buildings and ruins north of Montague, where Thomas Quick purchased a 2-acre plot in 1722 and built a gristmill. In time it became a hub of water-powered early industry, and the site remains symbolize a stage in the area's development.

Neldon-Roberts Schoolhouse ("Gun Factory" Stone House), NJ--Local: This small structure was built about 1860 as a residence and is an attractive stone house. Its use as a gun shop has never been documented.

\*Peters Valley Historic District, NJ--Local: This is a historic village numbering no fewer than 24 houses and 10 outbuildings dating from the 19th century and now functioning as a community of skilled artisans. Historic houses in the district are the Robert Stoll house, Doremus house, McEvoy house, Angermann house, and Mitchell house. The Valley Brook farm and Hilltop farm and their respective outbuildings provide compatible working areas for the craftsmen, in addition to retaining the overall historic scene. Other significant structures include the so-called Greek Revival house, "an architectural curiosity"; the old Dutch Reformed church, now a residence; the Peters Valley store, now a craft outlet; and the upper and lower Treible houses. The Dutch Reformed church, surrounded by a cemetery, remains in private ownership.

Slateford Farm Complex, PA--Local: A partially restored farm, the complex consists of a refurnished farmhouse, predecessor cabin, and springhouse dating from 1827. The old slate shanty on the grounds recalls those years during the 19th century when a half dozen quarry and slate manufacturing concerns operated in the vicinity of Slateford.

\*Shanna House, PA--Local: The building is the most historic of all the hotels remaining along the west side of the Delaware River. It records 150 years of architectural development and social change.

\*Tinsmith Shop and Turn General Store, Bushkill, PA (Private)--Local: The tinsmith shop is one of a very few buildings in the national recreation area showing a Greek Revival influence; it is the lone specimen of an early 19th century retail shop in the area. A two-story frame structure with wood-lapped siding, the shop exudes fine detailing and tasteful design. The adjacent general store was

built in two segments, the rear section dating from the mid 19th century. The two buildings' evoke the rural country store setting, which is fast disappearing from the American scene.

Totts Gap Complex (Weinman Farmhouse Group), PA--Local: This large complex includes a cut limestone two-story house of late 18th or early 19th century origins. In the house, early chair rails and other trim, reeded and gougework mantels, raised paneled cupboard doors, and an old stairway remain. The rest of the complex consists of a large handsome barn, a long barn, and a milk house.

\*Van Gordon House/Eshback Farm Complex, PA--Local: The Van Gordon house is a square, two-story ashlar and rubble stone house built around 1770, with a central entrance with chimneys and staircase. Half of the first floor is below hillside level and serves as a cellar. The Eshback house is a Federal style home built in the mid 19th century. (This structure was recently destroyed by fire.) With the attendant farm outbuildings, the complex relates the continuity of rural life on the same site for 200 years.

\*Walpack Center Historic District, NJ--Local: The historic district consists of six houses, school, store, and church of a late 19th century rural hamlet: the Charles Robbins house, the Lee Rosenkrans house (1830-40), the Lee Rosenkrans church/house, (1880-1900), the Hendershot house, the Christie house, the Joseph Robbins, Sr., house, school, store, and post office, and the Methodist-Episcopal church. The schoolhouse remains in the ownership of the local township.

Historically Significant Properties. Most of the structures in this category are located in the area of the upper valley's earliest European settlement, south of Montague in Sussex County, New Jersey. These former homes of Dutch settlers relate visually to one another and impart an air of consistency to the countryside around them. Eight structures, one site, and one district are included here, dating from the 18th century to the early 20th century. Events covered by this category relate to the French and Indian War, early European settlement, trade, and guest lodging.

Charles Sanders Peirce House, PA--National: The eminent philosopher--founder of pragmatism, scientist, and mathematician--built this house following his retirement in 1887 and named it Arisbe. Following his death in 1914, his widow Juliette enlarged it in a highly eclectic fashion, as a monument to him and his work.

\*Foster-Armstrong House, NJ--Local: This excellent specimen of early 18th century Dutch Colonial architecture features a frame structure with clapboard siding, gambrel roof, and flared eaves. It became the center of several local enterprises owned by Julius Foster and son-in-law James Britton Armstrong: a ferry (in operation until 1835), sawmill, gristmill, general store, blacksmith shop, shoemaker, distillery, and cider press. Around 1812 a stone wing was added.

It is an architecturally intriguing remnant of river history and traditions of the late 18th and early 19th centuries.

John Cleve Symmes Farm, NJ (Private)--State: The two-story frame farmhouse is believed to have been built around 1770 by Symmes, a member of the Continental Congress, 1786-88. Father-in-law of President William Henry Harrison, Symmes later became governor of the Ohio territories.

Neldon-Roberts House (Kitchen), NJ--Local: An early 19th-century, two-storied, clapboard structure that has been extensively remodeled is associated with the defunct village of Brick House. The settlement was virtually wiped out by construction of the Milford bridge across the Delaware. The house's surviving historic feature is its early stone summer kitchen, with a wide cooking-fireplace and roomy Dutch oven and smokehouse.

\*Old Mine Road Historic District, NJ--State and Local: Traditionally thought to have been constructed in the mid 17th century, the Old Mine Road proceeds along the Delaware River from about 2 miles north of Tocks Island to Kingston, New York, well outside the recreation area. As a district, it presents a cross section of architecture, transportation, and settlement in the Delaware Valley. Individual elements associated with the road include (from north to south):

Black Farmhouse: The 2½-story frame house on a stone basement, with clapboard siding, dates from the Federal period. The overall design is reminiscent of a New England or Georgian style, rather than the typical Dutch styles of the Delaware Valley. The site has been farmed since the 18th century.

Westbrook-Bell House: One of the two remaining houses that made up the Minisink Village, this gray stone house was built in the first quarter of the 18th century, and has been radically altered. It is probably the oldest house in Delaware Water Gap National Recreation Area. Near the Westbrook-Bell house are the still partially visible ruins of Fort Westbrook, a fortified residence used during the French and Indian War for the protection of neighboring settlers.

William Ennis House: This gray stone house with frame and siding gables was built in 1751 and is the second remaining house that made up Minisink Village. It is a surviving outpost of early settlement, as well as an example of little-changed and unpretentious period architecture. Near the Ennis house, between Old Mine Road and the Delaware River and near Namanock Island, are the ruins of Fort Namanock, one of the major defensive structures built and manned by the New Jersey colonial government during the French and Indian War. Unlike the "house forts," it was specifically built as a fort and had a small regular detachment of soldiers.

Anson Johnson House: This two-story, center-hall house, dates from about 1840. It has an exposed stone chimney-back at the first-floor level as a distinguishing feature.

Depue House: The Depue family was one of the first to settle in this portion of the Delaware Valley in the early 18th century. The interior of the elongated two-story stone house has been vandalized, but several important early farmhouse features remain.

Mettler Cemetery (Private): This cemetery dates from the early 19th century and typifies the many small family burying grounds that dot the area.

John Wesley Van Auken House (Ennis Ferryhouse) (Private): This 1760, 1½-story frame and clapboard structure with an 1850 two-story addition and porch served as the first ferryhouse in the Dingmans area. It also was a popular overnight stop for loggers rafting down the Delaware. A paneled frieze between the front's eyebrow windows adds architectural interest as the only such design feature in the national recreation area.

Birchenough House: This is a country Victorian house of mid 19th century vintage, with simple pedimented window casings, boxed cornices with eave returns, and Victorian front porch.

Smith-Roe House (Private): A carefully restored two-story fieldstone house built either in 1803 or 1813, with a frame clapboard summer kitchen. The circular staircase and moldings throughout the house were replaced, and extra effort on paint colors perfected the restoration. The house symbolizes the high degree of social mobility achieved by valley farmers.

Young House (Harker) (Private): This 2½-story ashlar and rubble stone house with a 1½-story clapboard wing dates from the 1820s and complements the rural scene.

Hill House: This 1½-story house with saltbox-effect clapboard siding may be older than the 19th century, its apparent period.

Fort Shapnack (Fort John): This site is still under investigation. It was worked in the summer of 1975 as an extensive test excavation and clearance. The subsequent report noted that not only was evidence found for the stockade posts of the fort, but also archival evidence to demonstrate that this was actually Fort John or "headquarters" for the French and Indian forts in the Delaware Valley.

Isaac Van Campen Inn: This historic house was built of stone by Isaac Van Campen around 1750. During the French and Indian War, its strong walls protected refugee villagers, as many as 150 at one time. General Gates stayed here in

December 1776, on the eve of the battle of Trenton. Northeast of the inn is a small cemetery reputed to be the burial place of Negro slaves. Additional research is needed to verify this fact.

Albert Knight Farmhouse: An early 19th-century frame house with steep gabled ends and clapboard siding, this structure contains an exposed stone chimney-back. The interior retains an interesting mantel and a corner fireplace.

Rosenkrans Ferryhouse (Private): The oldest portion of this 2½-story frame house was built around 1807. The Rosenkrans family, prominent in Sussex County since early settlement days, acquired the nearby Decker ferry around 1898. They moved it around Walpack Bend and operated it from this house until 1946. It was the last ferry in operation on this portion of the river.

Decker Ferryhouse: This long 1½-story frame house was built about 1800. A ferry was established at this site in the mid 18th century and was operated from this house throughout the 19th century, before being sold to the Rosenkrans family in 1898. In Walpack Bend, in the vicinity of the two ferryhouses, is the site of Fort Walpack, another of the French and Indian era forts. Like Fort Westbrook, Walpack was one of the irregularly manned, so-called house forts, used largely as a shelter for fleeing residents during Indian raids.

Rosenkrans House, Flatbrookville (Private): This elegant two-story frame house is one of a single row of seven houses that comprised Flatbrookville. It has original clapboards and an open porch with Victorian turned posts and fret brackets. This is the finest example of a Victorian house in the area. The interior detail is superior and well preserved.

Salamovka: This white frame house sits high above the Delaware River at Walpack Bend. It was once the refuge of White Russians who fled their homeland during the Russian Revolution.

Millbrook Village: This grouping of 10 buildings and five outbuildings--some original, some relocated, some reconstructed--is presented as a typical rural settlement of the late 19th and early 20th centuries. Four of the structures in the group are intact remnants of the original village: the George Trauger house, E.L. Garriss house, Sylvester Hill house, and Millbrook schoolhouse. Only these four buildings are listed as National Register properties.

Abraham Van Campen House: Built of red sandstone early in the 18th century, this house was the home of the Pahaquarry region's leading citizen. Van Campen became a justice of the peace and a militia colonel during the French and Indian War.

B.B. Van Campen House (Orthwein): This two-story frame clapboard, gable-end house with a 1½-story wing at one end dates from about 1840.

Miller House (Amos Van Campen): Built before 1830, this house was remodeled about 1860 and again in the mid 20th century. It is surrounded by a barn, wagonshed, and other outbuildings. Unlike other updated buildings in the area, this house wears its changes well and illustrates changing styles of domestic architecture in the valley.

Van Campen Fort Site/Van Campen Cemetery: This cemetery is associated with the complex of buildings around the B.B. and Abraham Van Campen residences.

Pahaquarry Copper Mine Ruins: These structures, which consist of several tunnels plus some large masonry remains of undetermined function, are the source of the name of the Old Mine Road. In the immediate area are other holes indicating mining activity in the 19th and 20th centuries, although apparently none of the operations was a commercial success. The road's name may also date from the 17th century, when according to tradition and local sentiment, copper ore was transported to Kingston, New York, on the Hudson River.

Copper Mine Inn (Shoemaker's Union Hotel): The Copper Mine Inn is a three-story structure, of which the first two stories are stone and date from the early 18th century. The building has had many historic accretions; the most significant change was the addition of the frame third story in 1908. The inn served as a stopping place both for coaches along the Old Mine Road and as a ferry stop for traffic on the river.

The Peter Van Noy house is significant but is not within the boundaries of the national recreation area. It has been recommended that the New Jersey state preservation officer nominate the building to the National Register.

#### Properties Not Eligible for Inclusion on the National Register of Historic Places

The following houses were included in the 1978 Draft General Management Plan but no longer exist:

Agnes Wells  
Hankins  
Frank Van Auken  
Brownie Holiday  
Evelyn Walsh

Peter Gumaer  
Fuller-Von Etten  
Matthey  
Baumbaugh  
Carl Pfeufer

The following buildings were removed from the Old Mine Road nomination:

Flatbrookville: The Rosenkrans house (previously described) is the only structure in this village to be included on the National Register. There are other structures in the recreation area that better represent architectural styles, and historical and cultural themes, than the few structures remaining in the village.

Millbrook Village: Artificial assemblages are not ordinarily eligible for the National Register. Only the four buildings on their original sites and unreconstructed are part of the Old Mine Road historic district (previously described).

The Jane Layton house lacks architectural integrity. The two sections of this frame structure have been heavily remodeled in a 20th century "Colonial" flavor, e.g., fenestration has been changed to include plate glass picture windows. The interior has been thoroughly gutted, all original fireplaces are gone, and a central stairway has been added. There is no significant historical importance attached to this house to overcome the complete lack of architectural integrity.

The Shimer house has also undergone major structural changes. The existing structure is not the one where historical activities occurred.

The following structures have been destroyed by vandalism and arson, and as such have lost most, if not all, historical and architectural integrity:

Bushkill gristmill--removed from National Register; only foundations remain

Elizabeth Bensley house--destroyed by arson; only foundations remain

William Allen/Margaret Travis house and filling station

Emery house

The McCarty homestead was declared not eligible for the National Register of Historic Places by the secretary of interior because it did not meet the criteria.

The Fort Hyndshaw site is not accurately known. A historical marker identifies its general location. The area will continue to be protected.

#### HISTORIC STRUCTURE COST ESTIMATES

These are approximate net costs; the gross amount is included in the total. Some costs may be incurred by non-NPS users under the leasing program. The costs do not include historic structure reports.

<u>Abraham Van Campen House</u> - Exterior preservation, interior modification, and site improvements	\$ 110,000
<u>Albert Knight Farmhouse</u> - Benign neglect, removal when safety hazards occur, and site cleanup	\$ 5,000
<u>Andrew Snable House</u> - Benign neglect, removal when safety hazards occur, and site cleanup	\$ 5,500
<u>Anson Johnson House</u> - Exterior preservation, interior modification, and site improvements	\$ 80,000
<u>B.B. Van Campen House</u> - Exterior preservation, interior modification, and site improvements	\$ 190,000
<u>Birchenough House</u> - Benign neglect, removal when safety hazards occur, and site cleanup	\$ 16,000
<u>Black Farmhouse</u> - Benign neglect, removal when safety hazards occur, and site cleanup	\$ 10,000
<u>Brodhead-Heller Farm (Wheat Plains)</u> - Exterior preservation, interior modification, and site improvements	\$ 150,000
<u>Callahan House</u> - Exterior and interior stabilization, and site improvements	\$ 190,000
<u>Captain Jacob Shoemaker House</u> - Exterior and interior stabilization, and site improvements	\$ 120,000
<u>Charles Sanders Peirce House</u> - Exterior restoration, partial restoration and modification of interior, rehabilitation of utilities, and site improvements	\$ 360,000
<u>Copper Mine Inn</u> - Exterior preservation, interior modification, rehabilitation of utilities, and site improvements	\$ 250,000
<u>Cornelius Gunn House</u> - Partial restoration and preservation of exterior, modification of interior, and site improvements	\$ 110,000
<u>Decker Ferryhouse</u> - Benign neglect, removal when safety hazards occur, and site cleanup	\$ 5,000
<u>Depue House</u> - Benign neglect, removal when safety hazards occur, and site cleanup	\$ 6,500
<u>DeRemer House and Barn</u> - Preservation of house and barn exteriors, modification of interiors, and site improvements	\$ 230,000

<u>Dingmans Dutch Reformed Church</u> - Exterior preservation and interior modification	\$ 200,000
<u>Goldhardt House</u> - Exterior preservation, interior modification, and site improvements	\$ 110,000
<u>Hill House</u> - Exterior preservation, interior modification, and site improvements	\$ 110,000
<u>Jane Sproul Klaer Aspinall Waterwheel House</u> - Exterior preservation and site improvements	\$ 20,000
<u>John Cleve Symmes Farm</u> - Restoration of farmhouse exterior, interior stabilization, and site improvements	\$ 170,000
<u>John Michael Farm</u> - Preservation of interiors and exteriors of farmhouse, washhouse, barn, wagon shed, dairy barn, small barn, silo, and miscellaneous frame sheds, and site improvements	\$ 200,000
<u>John Turn Farm Outbuildings</u> - Stabilization of limekiln, restoration of weavehouse and smokehouse, and site improvements	\$ 65,000
<u>John Wesley Van Auken House (Ennis Ferryhouse)</u> - Preservation of exterior, stabilization of interior, and site improvements	\$ 130,000
<u>Marie Zimmerman Complex</u> - Exterior stabilization and preservation, interior modification and stabilization, rehabilitation of utilities, preservation of dairy barn and outbuildings, and site improvements	\$ 350,000
<u>Millbrook Village</u> - Preservation of the George Trauger, Sylvester Hill, E.L. Garriss houses, Millbrook schoolhouse, and other buildings and outbuildings; rehabilitation of utilities; and site improvements	\$ 530,000
<u>Miller House</u> - Exterior preservation, interior modification, and site improvements	\$ 65,000
<u>Millville Village Ruins</u> - Ruins stabilization and site improvements	\$ 30,000
<u>Neldon-Roberts House (Kitchen)</u> - Benign neglect, removal when safety hazards occur, and site cleanup	\$ 5,500
<u>Neldon-Roberts Schoolhouse</u> - Exterior preservation, modification, rehabilitation of utilities, and site improvements	\$ 90,000

<u>Pahaquarry Copper Mine Ruins</u> - Ruins stabilization and site improvements	\$ 50,000
<u>Peters Valley Historic District</u> - Preservation, restoration, stabilization of exteriors; preservation, stabilization, and adaptive restoration of interiors for the following structures: Greek Revival house, old Dutch Reformed church, Peters Valley store, upper and lower Treible houses, Doremus house, Robert Stoll house, Mitchell house, Angermann house, Hilltop house/barn/springhouse/guesthouse, Valley Brook farm complex; rehabilitation of utilities; and site improvements (McEvoy house - benign neglect)	\$ 1,200,000
<u>Richard Layton (Del Russo) House</u> - Exterior preservation, interior modification, and site improvements	\$ 100,000
<u>Rosenkrans House, Flatbrookville</u> - Interior and exterior preservation, and site improvements	\$ 200,000
<u>Salamovka</u> - Exterior preservation, interior modification, rehabilitation of utilities, and site improvements	\$ 200,000
<u>Shanna House</u> - Exterior preservation, interior modification, rehabilitation of utilities, and site improvements	\$ 180,000
<u>Shoemaker-Houck Farm</u> - Interior and exterior preservation of house and outbuildings, and site improvements	\$ 200,000
<u>Slateford Farm Complex</u> - Preservation, modification, and restoration of interiors and exteriors of farmhouse, predecessor cabin, springhouse, old slate shanty, and cabin; rehabilitation of utilities; and site improvements	\$ 265,000
<u>Totts Gap Complex</u> - Exterior preservation and interior modification of Weinman farmhouse, large barn, long barn, milk house, cottages; rehabilitation of utilities; and site improvements	\$ 185,000
<u>Van Gordon House/Eshback Farm Complex</u> - Exterior preservation and interior restoration of Van Gordon house, rehabilitation of utilities, and site improvements	\$ 200,000
<u>Walpack Center Historic District</u> - Exterior preservation and interior modification for Charles Robbins house, Lee Rosenkrans house and church, Christie house, Joseph Robbins, Sr., house, Walpack Center school/store/post office, Methodist-Episcopal church, and outbuildings; rehabilitation of utilities; and site improvements	\$ 650,000

<u>Westbrook-Bell House</u> - Limited exterior restoration, partial interior restoration and modification, rehabilitation of utilities, and site improvements	\$ 170,000
<u>William Ennis House</u> - Limited exterior restoration, interior modification, rehabilitation of utilities, and site improvements	<u>\$ 170,000</u>
Net Construction Total	\$ 7,683,500
Gross Construction Total	\$11,218,000

Note: Costs for the following historic structures have not been estimated because federal operation is not foreseen over the long range, inadequate knowledge exists to develop any plans, or no work is contemplated beyond routine maintenance and protection: tinsmith shop and general store, Bushkill; Mettler Cemetery, Van Campen Fort; Van Campen Cemetery; Forts Namanock, Westbrook, Hyndshaw, Walpack; Dingmans ferryhouse and bridge, Gersham Bunnell house, Handler farm, Rosenkrans ferryhouse, Smith-Roe house, Young house, Cold Springs farm springhouse, Foster-Armstrong house, Isaac Van Campen Inn, Peters house (Corner Gift Shop), Schoonover Mountain House, and Zion Lutheran Church.

APPENDIX E: WATER QUALITY STANDARDS ESTABLISHED  
BY THE DELAWARE RIVER BASIN COMMISSION

3.20.4     Zone 1C

- A. Description (Resolution No. 67-7). Zone 1C is that part of the Delaware River extending from the U.S. Routes 6 and 209 bridge at Port Jervis, New York, R.M. 254.75, to Tocks Island Dam, 217.0 (proposed axis of dam).
- B. Water Uses to be Protected (Resolution No. 67-7). The quality of Zone 1C waters shall be maintained in a safe and satisfactory condition for the following uses:
1.    a.    public water supplies after reasonable treatment,  
      b.    industrial water supplies after reasonable treatment,  
      c.    agricultural water supplies;
  2.    a.    maintenance and propagation of resident game fish and other aquatic life,  
      b.    spawning and nursery habitat for anadromous fish,  
      c.    passage of anadromous fish,  
      d.    wildlife;
  3.    a.    recreation.
- C. Stream Quality Objectives.
1.    Dissolved Oxygen (Resolution Nos. 67-7 and 74-1)
    - a.    not less than 4.0 mg/l at any time;
    - b.    minimum 24-hour average of 5.0 mg/l.
  2.    Temperature (Resolution Nos. 67-7 and 74-1). Except in designated heat dissipation areas
    - a.    not to exceed 5°F (2.8°C) rise above ambient temperature until stream temperature reaches 87°F (30.6°C),
    - b.    natural temperature will prevail above 87°F (30.6°C).
  3.    pH (Resolution No. 67-7). Between 6.0 and 8.5.
  4.    Phenols (Resolution Nos. 67-7 and 74-1). Not to exceed 0.005 mg/l unless due to natural conditions.
  5.    Threshold Odor Number (Resolution No. 67-7). Not to exceed 24 at 60°C.
  6.    Synthetic Detergents (M.B.A.S.) (Resolution No. 67-7). Not to exceed 0.5 mg/l.
  7.    Radioactivity (Resolution No. 67-7).
    - a.    alpha emitters - not to exceed 3 pc/l (picocuries per liter);
    - b.    beta emitters - not to exceed 1,000 pc/l.

8. Fecal Coliform (Resolution Nos. 70-3 and 74-1). Not to exceed 200 per 100 milliliters as a geometric average; samples shall be taken at such frequency and location as to permit valid interpretation.
9. Total Dissolved Solids (Resolution No. 74-1). Not to exceed
  - a. 133 percent of background, or
  - b. 500 mg/l, whichever is less.
10. Turbidity (Resolution No. 74-1). Unless exceeded due to natural conditions.
  - a. maximum 30-day average 20 units,
  - b. maximum 150 units.

D. Effluent Quality Requirements (Resolution No. 67-7).

1. All discharges shall meet the effluent quality requirements of Section 3.10.
2. The carbonaceous oxygen demand from an outfall (exclusive of stormwater bypass) shall not exceed that assigned by the Commission to maintain stream quality objectives.

3.20.5 Zone 1D

- A. Description (Resolution Nos. 67-7 and 74-1). Zone 1D is that part of the Delaware River extending from Tocks Island Dam, R.M. 217.0 (proposed axis of dam), to the mouth of the Lehigh River at Easton, Pennsylvania, R.M. 183.66.
- B. Water Uses to be Protected (Resolution No. 67-7). The quality of Zone 1D waters shall be maintained in a safe and satisfactory condition for the following uses:
  1.
    - a. public water supplies after reasonable treatment,
    - b. industrial water supplies after reasonable treatment,
    - c. agricultural water supplies;
  2.
    - a. maintenance and propagation of resident game fish and other aquatic life,
    - b. spawning and nursery habitat for anadromous fish,
    - c. passage of anadromous fish,
    - d. wildlife;
  3.
    - a. recreation.
- C. Stream Quality Objectives.
  1. Dissolved Oxygen (Resolution Nos. 67-7 and 74-1).
    - a. not less than 4.0 mg/l at any time;
    - b. minimum 24-hour average of 5.0 mg/l.

2. Temperature (Resolution Nos. 67-7 and 74-1). Except in designated heat dissipation areas
    - a. not to exceed 5°F (2.8°C) rise above ambient temperature until stream temperature reaches 87°F (30.6°C),
    - b. natural temperature will prevail above 87°F (30.6°C).
  3. pH (Resolution No. 67-7). Between 6.0 and 8.5.
  4. Phenols (Resolution Nos. 67-7 and 74-1). Not to exceed 0.005 mg/l unless due to natural conditions.
  5. Threshold Odor Number (Resolution No. 67-7). Not to exceed 24 at 60°C.
  6. Synthetic Detergents (M.B.A.S.) (Resolution No. 67-7). Not to exceed 0.5 mg/l.
  7. Radioactivity (Resolution No. 67-7).
    - a. alpha emitters - not to exceed 3 pc/l (picocuries per liter);
    - b. beta emitters - not to exceed 1,000 pc/l.
  8. Fecal Coliform (Resolution Nos. 70-3 and 74-1). Not to exceed 200 per 100 milliliters as a geometric average; samples shall be taken at such frequency and location as to permit valid interpretation.
  9. Total Dissolved Solids (Resolution No. 74-1). Not to exceed
    - a. 133 percent of background, or
    - b. 500 mg/l, whichever is less.
  10. Turbidity (Resolution No. 74-1). Unless exceeded due to natural conditions
    - a. maximum 30-day average 20 units,
    - b. maximum 150 units.
- D. Effluent Quality Requirements (Resolution No. 67-7).
1. All discharges shall meet the effluent quality requirements of Section 3.10.
  2. The carbonaceous oxygen demand from an outfall (exclusive of stormwater bypass) shall not exceed that assigned by the Commission to maintain stream quality objectives.

**DEPARTMENT OF THE INTERIOR****Office of the Secretary****National Park Service****DEPARTMENT OF AGRICULTURE****Office of the Secretary****Forest Service****National Wild and Scenic Rivers System; Final Revised Guidelines for Eligibility, Classification and Management of River Areas**

**AGENCY:** National Park Service and Office of the Secretary, Interior; Forest Service and Office of the Secretary, USDA.

**ACTION:** Publication of final revised guidelines.

**FOR FURTHER INFORMATION CONTACT:** Bob Brockwehl (NPS), 202/272-3566.

William R. Snyder (USFS), 202/382-8014.

**SUPPLEMENTARY INFORMATION:**

Guidelines for the study of potential national wild and scenic rivers and management of designated rivers were first issued jointly by the Department of Agriculture and the Department of the Interior in 1970. On January 28, 1981 draft revised guidelines were published in the *Federal Register* for public comment (Vol. 46, No. 18, pp. 9148-9158). The document which follows was prepared after consideration of 50 letters of comment received from other Federal agencies, State governments, private industry, citizens' groups and individuals. Major comments and responses are summarized below. Many of the comments received were not addressed because they related to aspects of the wild and scenic rivers program beyond the scope of these guidelines. (See Preface of the revised guidelines.)

**Comments and Responses**

*Comment:* The definition of the term outstandingly remarkable value is too vague and too liberal. Too many rivers will be eligible for designation, unreasonably constraining economic development of natural resources. *Response:* Balancing of the need for protection versus development of each river area will be considered by the Congress in deciding whether or not to designate the river area. A determination that a particular river is eligible for designation does not necessarily imply that designation is the best use of the river in terms of the national interest.

*Comment:* The guidelines give inadequate emphasis to public

involvement in the study process.

*Response:* Public involvement is sufficiently addressed in the context of environmental statements or assessments prepared in the study process.

*Comment:* The guidelines do not make sufficiently clear which of the management principles apply to private lands. *Response:* The guidelines may be unclear to the general reader in this respect. The management principles are to be implemented throughout each river area to the fullest extent possible under the managing agency's general statutory authorities and other existing Federal, State and local laws, including zoning ordinances where available. Some management principles obviously apply only to Federal lands within the river area. For instance, the Wild and Scenic Rivers Act does not open private lands to public recreation. Management principles may apply to private lands only to the extent required by other laws such as local zoning and air and water pollution regulations.

*Comment:* Restriction of timber harvest to selective harvest techniques is unnecessarily limiting from both the timber production and the natural resource preservation standpoints.

*Response:* The guidelines have been amended in accordance with this comment.

*Comment:* Specific guidance contained in the 1970 guideline with respect to the granting of rights-of-way for transmission lines is omitted from the revised draft guidelines. *Response:* The subsection on rights-of-way has been amended in accordance with this comment.

*Comment:* A protected study area extending one half mile from each bank of the river is excessive when the final boundaries of a river area must average no more than one quarter mile from each bank (320 acres per mile). *Response:* The half-mile figure was intended to ensure that all areas likely to be included within the boundaries of a designated river area would be considered in the study process. Setting a study boundary based on the "visual corridor" concept was considered but rejected. The one-quarter-mile figure was finally selected to avoid unnecessary limitations on resource developments. Some developments which may be initiated beyond the one-quarter-mile boundary during the study period might be affected in the future if the area under development is included in the boundaries of the river area designated by Congress.

*Comment:* Evaluation of the study area in its existing condition for classification purposes does not allow

for the fact that a forest area growing in relatively natural condition at the time of the study may be scheduled for clearcutting at some future date. The classification process should allow for authorized and scheduled future uses which could change the condition and, thus, the classification of the river area. *Response:* The guidelines have been amended to permit consideration of alternative classifications for the river area where authorized future uses could alter classification.

The following additional changes were made in response to suggestions from the reviewing public or from reviewers within the responsible agencies.

- Unnecessary definitions were deleted.
- Quotations and paraphrases of the Wild and Scenic River Act (including the whole of Section II—Policy) were eliminated as much as possible. Instead, the guidelines will reference the appropriate sections of the Act where necessary.
- The entire subsection titled "Findings and Recommendations" and portions of the subsection titled "General Management Principles" were deleted and their content was placed in other appropriate sections.

Additional copies of the guidelines, the Wild and Scenic Rivers Act, as amended, and further information on the National Wild and Scenic Rivers System may be obtained from: National Park Service, Rivers and Trails Division (780), 440 G Street, N.W., Washington, D.C. 20243.

Dated: July 12, 1982.

G. Ray Arnett,

Assistant Secretary for Fish and Wildlife and Parks (Interior).

Dated: August 26, 1982.

Douglas W. MacCleery,

Deputy Assistant Secretary for Natural Resources and Environment (Agriculture).

Department of Agriculture

Department of the Interior

National Wild and Scenic Rivers System

Guidelines for Eligibility, Classification and Management of River Areas.

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### Preface

#### *The National Wild and Scenic Rivers System*

The Wild and Scenic Rivers Act, (Pub. L. 90-542 as amended; 16 U.S.C. 1271-1287) established a method for providing Federal protection for certain of our country's remaining free-flowing rivers, preserving them and their immediate environments for the use and enjoyment of present and future generations. Rivers are included in the system so that they may benefit from the protective management and control of development for which the Act provides.

The preamble of the Act states:

It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declares that the established national policy of dam and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes.

#### *Addition of Rivers to the System*

The Wild and Scenic Rivers Act provides two methods for adding a river to the National Wild and Scenic Rivers System. The first method is by an act of Congress. Congress can designate a river directly or it can authorize a river for study as a potential wild, scenic or recreational river. Upon completion of a study conducted by the Department of the Interior or the Department of Agriculture, a study report is prepared

and transmitted to the President who, in turn, forwards it with his recommendations to Congress for action.

The second method for inclusion of a river in the national system is through the authority granted to the Secretary of the Interior in section 2(a)(ii) of the Act. Upon application by the Governor or Governors of the State or States involved, the Secretary can designate a river as a component of the national system provided that the river has been designated as a wild, scenic or recreational river by or pursuant to an act of the legislature of the State or States through which if flows to be permanently administered as a wild, scenic, or recreational river by an agency or political subdivision of the State or States concerned.

To be eligible for inclusion in the system through either method, rivers must meet certain criteria set forth in section 2(b) of the Act. Procedures for proposing State-administered rivers for designation have been issued by the Department of the Interior.

#### *The Guidelines*

Subsequent to enactment of the Wild and Scenic Rivers Act in October 1968, the Departments of Agriculture and the Interior initiated studies of twenty-seven rivers which the Act authorized for study as potential additions to the National Wild and Scenic Rivers System. As these studies progressed, it became evident that specific requirements of the Act concerning the evaluation, classification and management of these rivers were subject to differing interpretations within and between the two departments.

It was therefore agreed that a uniform evaluation and management approach should be formulated for use by the two departments, and through a cooperative effort, *Guidelines for Evaluating Wild, Scenic and Recreational River Areas Proposed for Inclusion in the National Wild and Scenic Rivers System Under Section 2, Public Law 90-542* was prepared and promulgated in February 1970.

The guidelines not only provide guidance for the congressionally mandated studies under section 5(a) of the Act, but are also useful for evaluations conducted by water resource development agencies under section 5(d) and for States applying for inclusion of State-designated rivers in the national system.

#### *Revision of the Guidelines*

While these guidelines were effective throughout a decade, it became clear

that revision was necessary to incorporate changes identified through use and to reflect requirements of new laws and regulations. Therefore, on August 2, 1979, the President directed in his Environmental Message that "the Secretary of Agriculture and the Secretary of the Interior shall jointly revise their guidelines for evaluating wild, scenic and recreational rivers to ensure consideration of river ecosystems and to shorten the time currently used to study rivers for designation."

This revision of the guidelines has been prepared in response to the President's 1979 directive and includes:

- Clarification of the fact that free-flowing rivers which contain outstandingly remarkable ecological values are eligible for addition to the national system.
- Clarification of the fact that free-flowing river segments in or near urban areas that possess outstandingly remarkable values are eligible for addition to the national system.
- Elimination of the 25-mile minimum length guideline.
- Revision of the definition of sufficient river flow or volume of water in the river. Sufficient flow was not defined in the Act and the definition in the existing guidelines was unnecessarily limiting.
- Revised water quality guidelines to allow inclusion in the system of rivers where restoration to high water quality is planned.
- A revised section on management of designated river areas.
- A study schedule to accelerate completion of the river studies authorized by Congress.

#### **Section I—Definitions**

The following definitions are provided for the purpose of these guidelines only.

*Act:* The Wild and Scenic Rivers Act.

*Carrying capacity:* The quantity of recreation use which an area can sustain without adverse impact on the outstandingly remarkable values and free-flowing character of the river area, the quality of recreation experience, and public health and safety.

*Classification criteria:* Criteria specified in Section 2(b) of the Act for determining the classification (wild, scenic or recreational) of eligible river segments.

*Classification:* The process of determining which of the classes outlined in section 2(b) of the Act (wild, scenic, or recreational) best fit the river or its various segments.

**Component:** A river area designated as a unit of the National Wild and Scenic Rivers System.

**Designation:** Inclusion of a river area in the national system either by act of Congress or by authority of the Secretary of the Interior.

**Development:** Any manmade structure or modification of the natural or existing river environment.

**Eligibility:** Qualification of a river for inclusion in the national system through determination that it is free-flowing and with its adjacent land area possesses at least one outstandingly remarkable value.

**Flow:** The volume of water in a river passing a given point in a given period of time, usually expressed in terms of cubic feet per second or cubic meters per second.

**Impoundment:** A body of water formed by any manmade structure.

**Management plan:** The detailed development plan required under section 3(b) of the Act which states the boundaries and classification of the river area and presents a plan for its public use, development and administration.

**Primary contact recreation:** Activities in which there is prolonged and intimate contact with the water, (e.g., swimming, water skiing, surfing, kayaking, "tubing," and wading or dabbling by children.

**River area:** For a river study, that portion of a river authorized by Congress for study and its immediate environment comprising an area extending at least one-quarter mile from each bank. For designated rivers, the river and adjacent land within the authorized boundaries.

**Secondary contact recreation:** Activities in which contact with the water is either incidental or accidental, e.g., boating, fishing and limiting contact with water incident to shoreline activities.

**Study agency:** The agency within the Department of Agriculture or the Department of the Interior delegated the responsibility for a wild and scenic river study.

**Study report:** The report on the suitability or unsuitability of a study river for inclusion in the national system, which section 4(a) requires the Secretary of Agriculture, or the Secretary of the Interior, or both jointly to prepare and submit to the President. The President transmits the report with his recommendation to the Congress.

**Study team:** A team of professionals from interested local, State and Federal agencies invited by the study agency and participating in the study.

## Section II—The River Study

### The Study Process

Section 4(a) mandates that all rivers designated as potential additions to the system in section 5(a) be studied as to their suitability for inclusion in the system:

The Secretary of the Interior or, where national forest lands are involved, the Secretary of Agriculture or, in appropriate cases, the two Secretaries jointly shall study and submit to the President reports on the suitability or unsuitability for addition to the national wild and scenic rivers system of rivers which are designated herein or hereafter by the Congress as potential additions to such system. The President shall report to the Congress his recommendations and proposals with respect to the designation of each such river or section thereof under this Act.

The purpose of a wild and scenic river study is to provide information upon which the President can base his recommendation and Congress can make a decision. Procedures for developing the necessary information and preparing the study report may vary depending on the agency which conducts the study, but generally will include the steps shown on Table 1, Accelerated Study Schedule.

Wild and scenic river studies will comply with all applicable statutes and executive orders, which may include the following: the National Environmental Policy Act (Pub. L. 91-190), the National Historic Preservation Act (Pub. L. 89-665), the Endangered Species Act (Pub. L. 93-205), the Fish and Wildlife Coordination Act (Pub. L. 85-264), the Water Resources Planning Act (Pub. L. 89-80), the Floodplain and Wetlands Executive Orders (E.O. 11988 and E.O. 11990), the National Forest Management Act of 1976 (Pub. L. 94-588), the Federal Land Policy and Management Act of 1976 (Pub. L. 94-579), the Wild and Scenic Rivers Act, (Pub. L. 90-542, as amended), and any rules and regulations issued pursuant thereto.

### The Study Report

Each river study report will be a concise presentation of the information required in sections 4(a) and 5(c) of the Act as augmented by the Council on Environmental Quality regulations implementing the procedural provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508).

#### Section 4(a):

Each report, including maps and illustrations, shall show among other things the area included within the report; the characteristics which do or do not make the area a worthy addition to the system; the current status of land ownership and use in the area; the reasonably foreseeable potential

uses of the land and water which would be enhanced, foreclosed or curtailed if the area were included in the national wild and scenic rivers system; the Federal agency (which in the case of a river which is wholly or substantially within a national forest, shall be the Department of Agriculture) by which it is proposed the area, should it be added to the system, be administered; the extent to which it is proposed that such administration, including the costs thereof, be shared by State and local agencies; and the estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area, should it be added to the system.

In addition, section 5(c) requires that

The study of any of said rivers \* \* \* shall include a determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river should it be proposed for inclusion in the national wild and scenic rivers system.

Study reports may be combined with draft and final environmental impact statements (EIS) as permitted by § 1506.4 of the Council on Environmental Quality regulations. Study reports will be reviewed by other Federal agencies, states and the public as required by section 4(b) of the Wild and Scenic Rivers Act. Each of the following subsections describes the way in which the information is generated, analyzed and presented in the report.

### Description of the River Area

Each report will contain a description of the area included in the study. The study area will cover, as a minimum, an area extending the length of the river segment authorized for study and extending in width one-quarter mile from each bank of the river.

Adjacent river areas beyond one quarter mile from each river bank may be studied if their inclusion could facilitate management of the resources of the river area. For example, there may be important historic, archeological or ecological resource areas which may extend beyond the boundaries of the mandated study area, but could be better managed by inclusion in the river area. Also, management of the river area may be facilitated by extension to include established or available access points not included in the study.

For the purposes of study and determining eligibility and classification, the river area may be divided into segments.

The description of the river area will identify the outstandingly remarkable values and the extent of man's activity in the river environment to provide a clear basis for findings of eligibility and classification. While only one

outstandingly remarkable value is necessary for eligibility, the study report should carefully document all values of the river area.

In addition to the information required by Sections 4(a) and 5(c) of the Act, this section of the report will describe any existing zoning ordinances or other provisions of law governing land use in the study area.

If the study report and the environmental impact statement are combined, the same chapter may describe both the river area and the affected environment. For EIS purposes and for general information, a brief description of the regional setting will also be included.

#### *Determination of Eligibility*

Each report will contain a determination as to the eligibility of all portions of the authorized study area.

Section 2(b) of the Act states that "a \* \* \* river area eligible to be included in the system is a free-flowing stream and the related adjacent land area that possesses one or more of the values referred to in section 1, subsection (b) of this Act." The terms "river" and "free-flowing" are defined in section 16 of the act.

In reading and applying the criteria for eligibility, the following points are relevant:

- The fact that a river segment may flow between large impoundments will not necessarily preclude its designation. Such segments may qualify if conditions within the segment meet the criteria.
- Rivers or river segments in or near urban areas that possess outstandingly remarkable values may qualify. Only one outstandingly remarkable value is needed for eligibility.
- In addition to the specific values listed in Section 1(b) of the Act, other similar values, such as ecological, if outstandingly remarkable, can justify inclusion of a river in the national system.
- The determination of whether a river area contains "outstandingly remarkable" values is a professional judgment on the part of the study team. The basis for the judgment will be documented in the study report.
- There are no specific requirements concerning the length or the flow of an eligible river segment. A river segment is of sufficient length if, when managed as a wild, scenic or recreational river area, the outstandingly remarkable values are protected. Flows are sufficient if they sustain or complement the

outstandingly remarkable values for which the river would be designated.

#### *Classification*

Study reports will indicate the potential classification which best fits each eligible river segment as viewed in its existing condition. Section 2(b) of the Act states that rivers which are found eligible and included in the National Wild and Scenic Rivers Systems shall be classified as one of the following:

(1) Wild river areas—Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

These criteria are interpreted as follows:

a. "Free of impoundments." Wild river areas shall be free of impoundments.

b. "Generally inaccessible except by trail." Wild river areas will not contain roads, railroads, or other provisions for vehicular travel within the river area. The existence of a few inconspicuous roads leading to the boundary of the river area at the time of study will not necessarily bar wild river classification.

c. "Watersheds or shorelines essentially primitive." Wild river areas will show little or no evidence of human activity. Shorelines and watersheds within the river area should be essentially free of structures including such things as buildings, pipelines, powerlines, dams, pumps, generators, diversion works, rip-rap and other modifications of the waterway or adjacent land within the river corridor. The existence of a few inconspicuous structures, particularly those of historic or cultural value, at the time of study need not bar wild classification.

A limited amount of domestic livestock grazing or hay production may be considered "essentially primitive." There should be no row crops or ongoing timber harvest and the river area should show little or no evidence of past logging activities.

d. "Waters unpolluted." The water quality of a wild river will meet or exceed Federal criteria or federally approved State standards for aesthetics, for propagation of fish and wildlife normally adapted to the habitat of the stream, and for primary contact recreation except where exceeded by natural conditions.

(2) Scenic river areas—Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

These criteria are interpreted as follows:

a. "Free of impoundments." Scenic river areas will be free of impoundments.

b. "Shorelines or watersheds still largely primitive." To qualify for scenic classification, the river segment's shorelines and immediate environment should not show substantial evidence of human activity. The portion of the watershed within the boundary of the scenic river may have some discernible existing development. "Largely primitive" means that the shorelines and the immediate river environment still present an overall natural character, but that in places land may be developed for agricultural purposes. Row crops would be considered as meeting the test of "largely primitive," as would timber harvest and other resource use, providing such activity is accomplished without a substantial adverse effect on the natural appearance of the river or its immediate environment.

c. "Shorelines largely undeveloped" means that any structures or concentration of structures must be limited to relatively short reaches of the total area under consideration for designation as a scenic river area.

d. "Accessible in places by road" means that roads may reach the river area and occasionally bridge the river. The presence of short stretches of conspicuous or longer stretches of inconspicuous and well-screened roads or railroads will not necessarily preclude scenic river designation. In addition to the physical and scenic relationship of the free-flowing river area to roads or railroads, consideration should be given to the type of use for which such roads or railroads were constructed and the type of use which would occur within the proposed scenic river area.

(3) Recreational river areas—Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

These criteria are interpreted as follows:

a. "Readily accessible by road or railroad." River areas classified as recreational may contain existing parallel roads or railroads in close proximity to one or both banks of the river as well as bridge crossings and roads fording or ending at the river.

b. "Some development along their shorelines." Lands may have been developed for the full range of agricultural and forestry uses, may show evidence of past and ongoing timber

harvest, and may include some residential, commercial or similar development.

c. "Some impoundment or diversion in the past." There may be some existing impoundments, diversions and other modifications of the waterway having an impact on the river area. Existing low dams, diversion works, rip-rap and other minor structures will not bar recreational classification, provided the waterway remains generally natural and riverine in appearance.

The classification criteria are summarized in Table 2, appended to these guidelines.

There are several points which all participants and observers of the study process should bear in mind when reading and applying the classification criteria:

- It is important to understand each criterion, but it is more important to understand their collective intent. Each river segment and its immediate environment should be considered as a unit. The basis for classification is the degree of naturalness, or stated negatively, the degree of evidence of man's activity in the river area. The most natural rivers will be classified wild; those somewhat less natural, scenic, and those least natural, recreational.
- Generally, only conditions within the river area determine classification; however, occasionally conditions outside the river area, such as developments which could impact air and water quality, noise levels or scenic views within the river area, may influence classification.
- For the purpose of classification, a river area may be divided into segments. Each segment, considered as a whole, will conform to one of the classifications. In segmenting the river the study team should take into account the management strategies necessary to administer the entire river area and should avoid excessive segmentation.
- The Wild and Scenic Rivers Act provides no specific guidance on water quality for scenic and recreational rivers. However, the Clean Water Act has made it a national goal that all waters of the United States be made fishable and swimmable, and provides the legal means for upgrading water quality in any river which would otherwise be suitable for inclusion in the system. Therefore, rivers will not necessarily be excluded from the system because of poor water quality at the time study, provided a water quality improvement plan exists or is being

developed in compliance with applicable State and Federal laws.

- Although each classification permits certain existing development, the criteria do not imply that additional inconsistent development is permitted in the future.
- The classification criteria provide uniform guidance for professional judgment, but they are not absolutes. It is not possible to formulate criteria so as to mechanically or automatically classify river areas. Therefore, there may occasionally be exceptions to some of the criteria. For example, if the study team finds that strict application of the statutory classification criteria would not provide the most appropriate classification for a specific river segment, the study report may recommend for congressional consideration an exception to the classification criteria.

#### *Analysis of the Alternatives*

To provide for decisionmaking and to satisfy the requirements of the National Environmental Policy Act, study reports will include an analysis of alternatives. The study team will develop an array of alternative plans encompassing all reasonable proposals for use of the river area including uses which may be incompatible with designation of the river area as a component of the national system. Where appropriate, alternative plans for the river area may be based on, but not limited to:

- Alternative managing agencies for the river area;
- Alternative protective measures other than national designation;
- Alternative uses of the area incompatible with designation as a component of the national system; and
- Alternative classifications for the river area. Occasionally there may be authorized but not yet constructed projects, which if constructed would alter the classification of the river area. In such cases, alternatives may be presented to permit consideration of the river area as it would be classified both with and without the authorized project. Authorized projects may include approved land management plans prepared by a Federal land management agency under its statutory authorities.

The study report will present at least one alternative plan calling for national designation through either Congressional or Secretarial designation of all eligible segments of the congressionally authorized study area.

If the study team finds a segment ineligible for designation as a

component of the National Wild and Scenic Rivers System, but still worthy of protection, alternatives for State, local or private preservation may be presented, as well as protection under other Federal programs.

If areas adjacent to the study area have been studied and found eligible, the report may present alternatives which incorporate such areas into the river area proposed for designation. Such expansion of the original study area either in length or in width may be desirable to preserve and facilitate management of river ecosystems, historic or archeological areas or other special areas.

#### **Section III—Management**

Wild and scenic rivers shall be managed with plans prepared in accordance with the requirements of the Act, other applicable laws, and the following general management principles. Management plans will state: General principles for any land acquisition which may be necessary; the kinds and amounts of public use which the river area can sustain without impact to the values for which it was designated; and specific management measures which will be used to implement the management objectives for each of the various river segments and protect esthetic, scenic, historic, archeologic and scientific features.

If the classification or classifications determined in the management plan differ from those stated in the study report, the management plan will describe the changes in the existing condition of the river area or other considerations which required the change in classification.

#### *General Management Principles*

##### Section 10(a) states,

Each component of the national wild and scenic rivers system shall be administered in such a manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protecting its esthetic, scenic, historic, archeologic, and scientific features. Management plans for any such component may establish varying degrees of intensity for its protection and development on the special attributes of the area.

This section is interpreted as stating a nondegradation and enhancement policy for all designated river areas, regardless of classification. Each component will be managed to protect and enhance the values for which the river was designated, while providing for public

recreation and resource uses which do not adversely impact or degrade those values. Specific management strategies will vary according to classification but will always be designed to protect and enhance the values of the river area. Land uses and developments on private lands within the river area which were in existence when the river was designated may be permitted to continue. New land uses must be evaluated for their compatibility with the purposes of the Act.

The management principles which follow stem from section 10(a). Managing agencies will implement these principles to the fullest extent possible under their general statutory authorities and existing Federal, State and local laws. Because of these limitations, however, implementation of the principles may differ among and within components of the system depending on whether the land areas involved are federally, State, locally or privately owned.

*Carrying Capacity.* Studies will be made during preparation of the management plan and periodically thereafter to determine the quantity and mixture of recreation and other public use which can be permitted without adverse impact on the resource values of the river area. Management of the river area can then be planned accordingly.

*Public Use and Access.* Public use will be regulated and distributed where necessary to protect and enhance (by allowing natural recovery where resources have been damaged) the resource values of the river area. Public use may be controlled by limiting access to the river, by issuing permits, or by other means available to the managing agency through its general statutory authorities.

*Basic Facilities.* The managing agency may provide basic facilities to absorb user impacts on the resource. Wild river areas will contain only the basic minimum facilities in keeping with the "essentially primitive" nature of the area. If facilities such as toilets and refuse containers are necessary, they will generally be located at access points or at a sufficient distance from the river bank to minimize their intrusive impact. In scenic and

recreational river areas, simple comfort and convenience facilities such as toilets, shelters, fireplaces, picnic tables and refuse containers are appropriate. These, when placed within the river area, will be judiciously located to protect the values of popular areas from the impacts of public use.

*Major Facilities.* Major public use facilities such as developed campgrounds, major visitor centers and administrative headquarters will, where feasible, be located outside the river area. If such facilities are necessary to provide for public use and/or to protect the river resource, and location outside the river area is infeasible, such facilities may be located within the river area provided they do not have an adverse effect on the values for which the river area was designated.

*Motorized Travel.* Motorized travel on land or water is generally permitted in wild, scenic and recreational river areas, but will be restricted or prohibited where necessary to protect the values for which the river area was designated.

*Agricultural and Forestry Practices.* Agricultural and forestry practices should be similar in nature and intensity to those present in the area at the time of designation. Generally, uses more intensive than grazing and hay production are incompatible with wild river classification. Rowcrop production and timber harvest may be practiced in recreational and scenic river areas. Recreational river areas may contain an even larger range of agricultural and forestry uses. Timber harvest in any river area will be conducted so as to avoid adverse impacts on the river area values.

*Other Resource Management Practices.* Resource management practices will be limited to those which are necessary for protection, conservation, rehabilitation or enhancement of the river area resources. Such features as trail bridges, fences, water bars and drainage ditches, flow measurement devices and other minor structures or management practices are permitted when compatible with the classification of the river area and provided that the area remains natural in appearance and the practices or structures harmonize with the

surrounding environment.

*Water Quality.* Consistent with the Clean Water Act, water quality in wild, scenic and recreational river areas will be maintained or, where necessary, improved to levels which meet Federal criteria or federally approved State standards for aesthetics and fish and wildlife propagation. River managers will work with local authorities to abate activities within the river area which are degrading or would degrade existing water quality.

Additional management principles stem from other sections of the Act as follows:

Land Acquisition: Section 6  
Water Resource Development: Section 7  
Mining: Section 9  
Management of Adjacent Federal Lands: Section 12(a)  
Hunting and Fishing: Section 13(a)  
Water Rights: Section 13(b)-(f)  
Rights-of-Way: Section 13(g)

The following policies are consistent with and supplement the management principles stated in the Act:

*Land Use Controls.* Existing patterns of land use and ownership should be maintained, provided they remain consistent with the purposes of the Act. Where land use controls are necessary to protect river area values, the managing agency will utilize a full range of land-use control measures including zoning, easements and fee acquisition.

*Rights-of-Way.* In the absence of reasonable alternative routes, new public utility rights-of-way on Federal lands affecting a Wild and Scenic River area or study area will be permitted. Where new rights-of-way are unavoidable, locations and construction techniques will be selected to minimize adverse effects on scenic, recreational, fish and wildlife and other values of the river area.

Other legislation applicable to the various managing agencies may also apply to wild and scenic river areas. Where conflicts exist between the provisions of the Wild and Scenic Rivers Act and other acts applicable to lands within the system, the more restrictive provisions providing for protection of the river values shall apply.

BILLING CODE 4310-70-M

TABLE 1.  
ACCELERATED STUDY SCHEDULE  
MONTHS

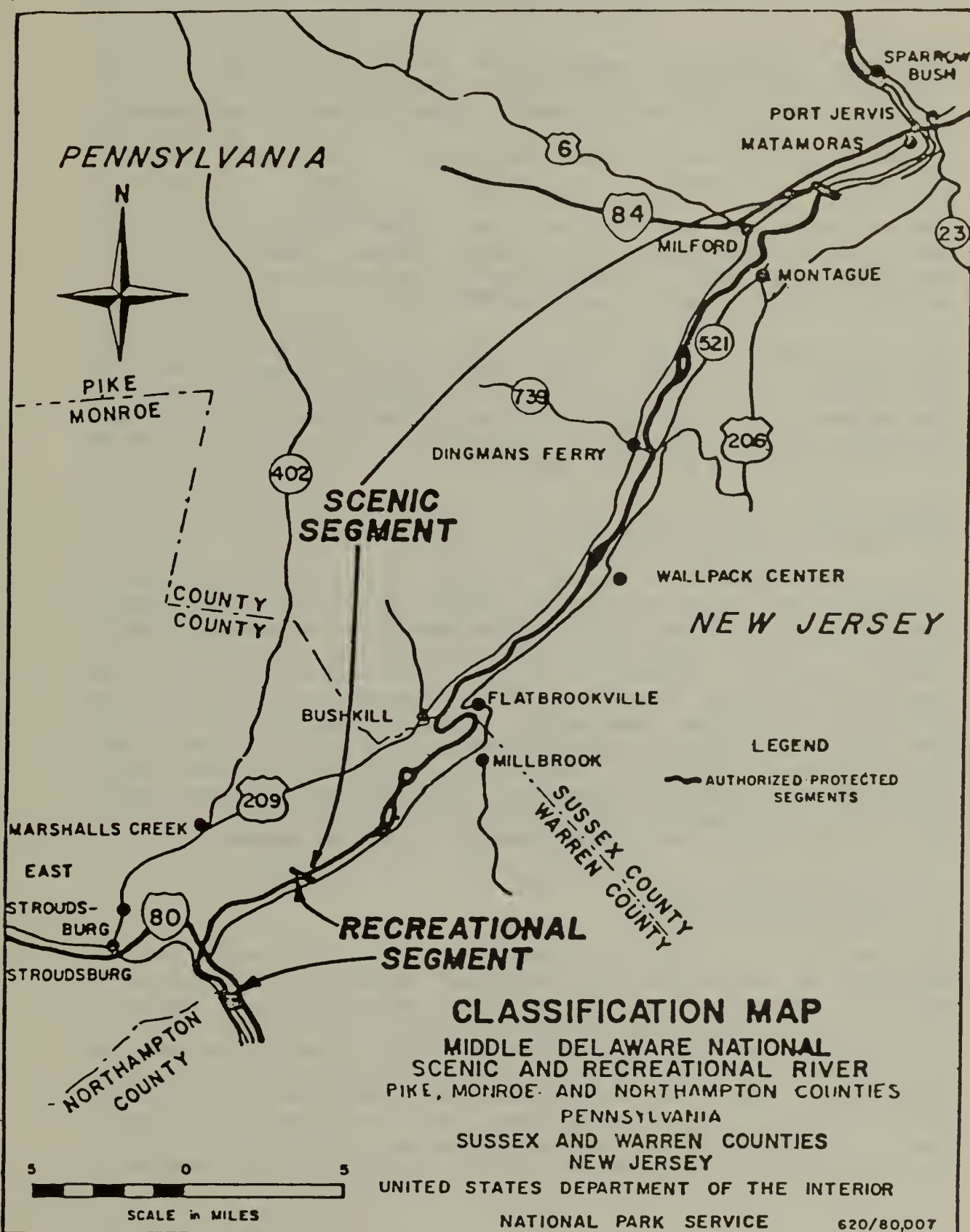
River Study Tasks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1. Organize study team Prepare study plan Public information meetings Scope critical issues																														
2. Resource Inventories (a) Study Bndry. Locations (b) River eligibility and classification evalu. (c) Literature search (d) Other agency contacts (e) Resource maps																														
3. Develop alternative (a) Prepare alternatives display (b) Public meetings on findings and alternat. (c) Analyze Public Input (d) Evaluate alternatives																														
4. Complete Preliminary Report/DEIS																														
5. Review of Draft (a) Internal Review (b) Revise preliminary as needed (c) Prepare owners ready copy (d) Print Draft Report/EIS (e) Distribute for 90-day review (a) Public meetings or formal hearings during review																														
6. Analyze Review Input Revise draft as needed. Internal Review																														
7. Print Final Report																														
8. Secretary's declaion and transmittal of report w/ recommendations to OMB																														
9. Executive review and transmittal to the Congress																														

This schedule does not take into account the possibility of delays due to Congressional concern, interagency or intradepartmental concerns or other possible outside influences that cannot be planned for.

TABLE 2.  
CLASSIFICATION CRITERIA FOR WILD, SCENIC AND RECREATIONAL RIVER AREAS \*

ATTRIBUTE	WILD	SCENIC	RECREATIONAL
Water Resource Development	Free of impoundment.	Free of impoundment.	Some existing impoundment or diversion.  The existence of low dams, diversions or other modifications of the waterway is acceptable, provided the waterway remains generally natural and riverine in appearance.
Shoreline Development	Essentially primitive. Little or no evidence of human activity.  The presence of a few inconspicuous structures, particularly those of historic or cultural value, is acceptable.  A limited amount of domestic livestock grazing or hay production is acceptable.  Little or no evidence of past timber harvest. No ongoing timber harvest.	Largely primitive and undeveloped. No substantial evidence of human activity.  The presence of small communities or dispersed dwellings or farm structures is acceptable.  The presence of grazing, hay production or row crops is acceptable.  Evidence of past or ongoing timber harvest is acceptable, provided the forest appears natural from the riverbank.	Some development. Substantial evidence of human activity.  The presence of extensive residential development and a few commercial structures is acceptable.  Land may have been developed for the full range of agricultural and forestry uses.  May show evidence of past and ongoing timber harvest.
Accessability	Generally inaccessible except by trail.  No roads, railroads or other provision for vehicular travel within the river area. A few existing roads leading to the boundary of the river area is acceptable.	Accessible in places by road.  Roads may occasionally reach or bridge the river. The existence of short stretches of conspicuous or longer stretches of inconspicuous roads or railroads is acceptable.	Readily accessible by road or railroad.  The existence of parallel roads or railroads on one or both banks as well as bridge crossings and other river access points is acceptable.
Water Quality	Meets or exceeds Federal criteria or federally approved State standards for aesthetic, for propagation of fish and wildlife normally adapted to the habitat of the river, and for primary contact recreation (swimming) except where exceeded by natural conditions.	No criteria prescribed by the Wild and Scenic Rivers Act. The Federal Water Pollution Control Act Amendments of 1972 have made it a national goal that all waters of the United States be made fishable and swimmable. Therefore, rivers will not be precluded from scenic or recreational classification because of poor water quality at the time of their study, provided a water quality improvement plan exists or is being developed in compliance with applicable Federal and State laws.	

\* Table to be used only in conjunction with text.



## APPENDIX G: LEGISLATIVE JURISDICTION

The term jurisdiction is used to denote a number of things. Of prime importance to management personnel is the jurisdiction--the power or right to exercise legislative authority over an area--that the United States has, or may exercise, over an area. Stated differently, jurisdiction is controlling authority; the right of making and enforcing laws and regulations; the capacity of determining rules of action or use, leading to the exaction of penalties; the function or capacity of judging or governing in general; and the inherent power of decision or control. The type of jurisdiction vested in the United States that may be exercised over an area is determinative of the laws--federal or state, or both--that may be enforced within a national park system area or on the federally owned lands within a national park system area.

The current right to enforce rules and regulations on federal lands within the boundary of Delaware Water Gap National Recreation Area is proprietary jurisdiction in accordance with section 7 of Public Law 89-158 (see appendix A). Other possible forms of jurisdiction are exclusive and concurrent (for US 209 and the Pennsylvania River Road). All three jurisdiction types are explained below.

### PROPRIETARY JURISDICTION

This form of jurisdiction is common and is based on right of ownership by a sovereign power--in the case of Delaware Water Gap by the federal government. The United States at a minimum has proprietary jurisdiction in all park areas. Under this type of jurisdiction, the state has not formally ceded any jurisdiction to the United States, but the United States as a sovereign power may issue reasonable rules and regulations for the use, protection, and control of its property. The courts have ruled that in proprietary jurisdiction federal rules and regulations prevail over state laws. State laws, however, may be enforced by state agents in the absence of federal regulations. The difficulty in this type of jurisdiction is that applicable state laws may not be enforceable by federal agents where corresponding federal laws have not been passed.

### EXCLUSIVE JURISDICTION

The term exclusive legislative jurisdiction as used in this report refers to the power "to exercise exclusive legislation" granted to the Congress by article I, section 8, clause 17 of the Constitution and to the like power that may be acquired by the United States through cession by a state, or by a reservation made by the United States in connection with the admission of a state into the union. In the exercise of such power as to an area in a state, the federal government theoretically displaces the state in which the area is contained of all its sovereign authority, executive and judicial as well as legislative. By state and federal statutes and judicial decisions, however, it is accepted that a reservation

by a state of only the right to serve criminal and civil processes in an area, resulting from activities that occurred off the area, is not inconsistent with exclusive legislative jurisdiction.

State laws may be enforced by federal agents through the Assimilative Crimes Act, 18 USC 13 (1969). However, the federal agency must be prepared to handle all criminal matters, including investigations and prosecutions.

### CONCURRENT JURISDICTION

A reasonable middle ground exists in the establishment of concurrent jurisdictional authority over all park lands. Concurrent jurisdiction results from formal recognition by the state of federal control over certain lands, but in so acting, the state reserves unto itself the right to exercise, concurrently with the United States, similar authority. Concurrent jurisdiction is granted through negotiations with each state and may require an act of each state legislature. The result of this action would be clear understanding of the regulating authority (1) that the federal government is the primary management and law enforcement agency, (2) that the state may assist the federal government in all aspects of management and law enforcement, and may act within its own authority in the absence of federal regulation, and (3) that federal agents can enforce state laws through the Assimilative Crimes Act in concurrent jurisdiction. Thus, both authorities have maximum coverage.

Neither exclusive nor proprietary jurisdiction seems suitable for the effective management of Delaware Water Gap National Recreation Area.

With exclusive jurisdiction the recreation area would, to the detriment of close working relationships with other agencies, have too much authority. On the other hand, proprietary jurisdiction does not permit the enforcement of state laws, when applicable, by federal agents, i.e., too little authority. This could result in misunderstanding or misinterpretation of authority between the state and federal governments.

The establishment of concurrent jurisdiction at Delaware Water Gap National Recreation Area will be in accord with the will of Congress as covered in the General Authorities Act, PL 94-458, approved October 7, 1976.

## APPENDIX H: COST ESTIMATES AND IMPLEMENTATION SCHEDULES

Comparative cost estimates are presented for facility development, roads and trails, historic structures, and annual park operations. The estimates are conceptual in nature and are based on average costs for developing and operating similar types of facilities. The costs will be revised as proposals are refined. All costs are shown in 1985 dollars.

### DEVELOPMENT COSTS

The development costs (table H-1) are based on typical costs per unit for various types of facilities (for example, parking areas are based on the cost per space, or campgrounds on the cost per campsite); indirect costs such as design services, construction supervision, and mitigations of adverse effects on archeological resources, where necessary, have been included. Costs are given for each development site, and all facilities described on the General Development map for each alternative are included in the site totals.

The costs indicated for alternative 1 are generally those that would bring existing facilities up to a standard to ensure public health and safety, to meet existing demand, and to provide for operational efficiency. The proposed plan represents the cost of facilities to meet the projected demand in the year 1995. The differences between the proposed plan and alternative 2 are due to the increased size of facilities required for an economically viable commercial operation. Costs that could be underwritten by private capital are also indicated.

### ROADS AND TRAILS

Table H-2 shows the costs for making necessary repairs to roads under federal ownership. Categories of use refer to those shown on the Roads map for each alternative. This necessary work is expected to be funded through the federal lands highway program. The cost of reconstruction of US 209 is under study by the Federal Highway Administration and is not included in the estimates.

Much of the trail development undertaken in the recreation area has been a cooperative effort between the National Park Service and interested local groups. Bicycle, skiing, and equestrian groups continue to express interest in developing additional trails. It can be expected that many of the costs associated with the development, rehabilitation, and maintenance of trails will be borne by cooperating groups, including the Appalachian trail clubs.

## HISTORIC STRUCTURES

The leasing of historic structures will be emphasized under each alternative (table H-3). The determination of which structures could be leased and which would continue to be used by the National Park Service is based on the qualities of the structures (see appendix D) and their economic viability for commercial activity. The difference between the proposed plan and alternative 2 is that structures used by the National Park Service under the proposed plan could be available for commercial uses under alternative 2.

## OPERATING COSTS

Annual operating costs are shown in table H-4 and are estimated from current operating costs and take into account additional staffing, supplies, and equipment needs.

Table H-1: Facility Development Costs and Phasing Schedule

	<u>Proposed Plan</u>	<u>Alternative 1</u>	<u>Alternative 2</u>
<u>Phase 1 (1-5 years)</u>			
Slateford Farm	\$582,000	\$582,000	\$582,000
Hialeah NRA Entrance	29,000	29,000	29,000
Hialeah Picnic Area	177,000	177,000	177,000
Smithfield	213,000	203,000	213,000*
Hidden Lake	818,000	697,000	836,000
NRA Headquarters	50,000	50,000	50,000
Miller-Hagen	162,000	0	162,000
Bushkill Access	299,000	299,000	311,000
Valley View	92,000	0	92,000
Egypt Mills	67,000	0	67,000
Pocono Access	85,000	0	311,000
Shapnack Access	8,000	0	8,000
Hornbeck	285,000	69,000	285,000
Hornbeck Creek Access	12,000	0	12,000
Childs Picnic Area	529,000	517,000	529,000
Dingmans Falls	120,000	120,000	120,000
Dingmans Launch	1,485,000	1,485,000	2,575,000*
Dry Brook	28,000	0	28,000
Shanna House	561,000*	561,000*	1,161,000*
Indian Point	12,000	0	12,000
Milford Beach	1,267,000	1,267,000	1,267,000
Roberts Lane	8,000	0	8,000
Peirce House (site work)	31,000	31,000	31,000
Weygadt	5,219,000	2,956,000	5,219,000
Kittatinny Point	719,000	219,000	719,000
Copper Mine Inn	1,121,000*	270,000	1,121,000*
Poxono	46,000	0	46,000
Hamilton	91,000	0	91,000
Watergate	668,000	668,000	668,000
Millbrook Village	1,638,000	468,000	1,638,000
Stevens Point	93,000	0	93,000
Peters	174,000	20,000	174,000
Smith Ferry	64,000	0	2,045,000*
Buck	122,000	0	122,000
Long Pine Lake	4,860,000*	0	5,000,000*
Crater Lake	192,000	0	105,000
Fort John	94,000	0	94,000
Sandyston Canoe Campsites	107,000	10,000	133,000
Namanock	275,000	0	275,000
Minisink	64,000	0	64,000
White Brook	64,000	0	64,000
US 206 NRA Entrance	50,000	0	50,000
Millville	161,000	0	161,000
Millville Beach	182,000	0	1,539,000*
Quicks Island	64,000	0	64,000
Subtotal - NPS	\$16,446,000	\$10,137,000	\$14,697,000
Concessioner	<u>6,542,000</u>	<u>561,000</u>	<u>13,654,000</u>
Subtotal - Phase 1	\$22,988,000	\$10,698,000	\$28,351,000

	<u>Proposed Plan</u>	<u>Alternative 1</u>	<u>Alternative 2</u>
<u>Phase 2 (5-10 years)</u>			
Point of Gap	322,000	278,000	278,000*
Borough of Delaware Water			
Gap Railroad Station	0	0	585,000*
Ferry Landing	94,000	0	94,000*
Sand Hill NRA Entrance	1,023,000	0	1,023,000
Cold Spring	8,000	0	3,690,000*
Bushkill Schoolhouse	132,000	132,000	132,000
Stucki Pond	43,000	0	43,000
Eshback	955,000	46,000	1,275,000*
Loch Lomond	46,000	0	46,000
Dingmans Campground	200,000*	200,000*	200,000*
PA District Office	132,000	132,000	132,000
Zimmerman Maintenance			
Area	1,200,000	1,200,000	1,200,000
Raymondskill Falls	63,000	63,000	213,000*
Tocks Airpark	10,000	0	10,000
Fechter Pond	101,000	0	261,000*
Lapawansa NRA Entrance	1,024,000	0	1,024,000
Dunfield Creek	219,000	0	219,000
Dimmicks Launch	71,000	0	398,000*
Pahaquarry Copper Mines	92,000	0	92,000
Depew Recreation Site	810,000	58,000	810,000
Van Campens Glen	133,000	29,000	133,000
Rivers Bend	466,000	403,000	466,000
Blue Mountain Lakes	159,000	0	864,000*
Flatbrook Valley Overlook	57,000	0	57,000
Buttermilk Falls	407,000	0	407,000
NJ District Office	83,000	83,000	83,000
Walpack Valley Environmental			
Education Center	237,000	237,000	237,000
Walpack Center/Flatbrook			
Valley	1,660,000*	110,000*	5,170,000*
Thunder Mountain	742,000	181,000	1,501,000*
Peters Valley	692,000*	40,000	692,000*
Sandyston Beach	3,549,000	0	3,549,000
Kettle Holes	1,886,000*	0	3,772,000*
Old Mine Road Youth			
Hostel	29,000*	0	50,000*
Neldon-Roberts Schoolhouse	30,000	0	30,000
Subtotal - NPS	\$12,208,000	\$ 2,882,000	\$ 9,693,000
Concessioner	4,467,000	310,000	19,043,000
Subtotal - Phase 2	\$16,675,000	\$ 3,192,000	\$28,736,000
NPS Development			
Cost Total	\$28,654,000	\$13,019,000	\$24,390,000
Concessioner Cost			
Total	11,009,000	871,000	32,697,000
Grand Total	\$39,663,000	\$13,890,000	\$57,087,000

\*A site that could be operated under a concession contract and would require private sector capital.

Table H-2: Road and Trail Costs

<u>Roads under Federal Jurisdiction</u>	<u>Proposed Plan</u>	<u>Alternative 1</u>	<u>Alternative 2</u>
Year-Round Paved Roads			
Reconstruction	\$ 6,000,000	\$ 4,560,000	\$ 7,350,000
Resurfacing	11,960,000	9,120,000	14,680,000
Year-Round Unpaved Roads			
Additional base	452,000	382,000	680,000
Maintenance	12,000	10,000	16,000
Seasonal Paved Roads			
Reconstruction	253,000	1,062,000	227,000
Resurfacing	570,000	2,394,000	494,000
Seasonal Unpaved Roads			
Additional base	220,000	--	--
Regrading	21,000	--	--
Restricted Use Roads			
Resurfacing of paved roads	102,000	102,000	68,000
Maintenance of unpaved roads	81,000	69,000	88,000
Closed Roads			
Revegetation	262,000	456,000	220,000
Scarification	131,000	228,000	110,000
Blocking	<u>13,000</u>	<u>23,000</u>	<u>11,000</u>
Total	\$20,077,000	\$18,406,000	\$23,944,000
<u>Trails</u>			
Rehabilitation of Existing Trails	\$ 18,000	\$ 18,000	\$ 18,000
New Trail Development*	<u>5,943,000*</u>	<u>*</u>	<u>*</u>
Total	\$5,961,000	\$ 18,000	\$ 18,000

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\*For the proposed plan this estimate does not reflect how much would be underwritten by private interest groups. For alternatives 1 and 2, new trail development would be carried out by private groups, not the Park Service.

Table H-3: Historic Structure Cost Estimates

Proposed PlanLease or Other Use

Abraham Van Campen house	\$ 110,000
B.B. Van Campen house	190,000
Brodhead-Heller farm	150,000
Callahan house	190,000
Captain Jacob Shoemaker house	120,000
Copper Mine Inn	250,000
DeRemer house and barn	230,000
Goldhardt house	110,000
Hill house	110,000
John Cleve Symmes farm	170,000
John Michael farm	200,000
Neldon-Roberts schoolhouse	90,000
Peters Valley	1,200,000
Rosenkrans house (Flatbrookville)	200,000
Salamovka	200,000
Shanna House	180,000
Shoemaker-Houck farm	200,000
Van Gordon/Eshback farm	200,000
Walpack Center	650,000
Net	\$4,750,000
Gross	\$6,935,000

NPS Use

Albert Knight farmhouse	\$ 5,000
Andrew Snable house	5,500
Anson Johnson house	80,000
Birchenough house	16,000
Black farmhouse	10,000
Charles S. Peirce house	360,000
Cornelius Gunn house	110,000
Decker ferryhouse	5,000
Depue house	6,500
Dingmans Dutch Reformed Church	200,000
Jane Sproul Klaer Aspinall waterwheel house	20,000
John Turn farm outbuildings	65,000
John Wesley Van Auken house (Ennis ferryhouse)	130,000
Marie Zimmerman complex	350,000
Millbrook Village	530,000
Miller house	65,000
Millville Village ruins	30,000
Neldon-Roberts house (kitchen)	5,500
Pahaquarry Copper Mine ruins	50,000
Richard Layton house	100,000
Slateford Farm complex	265,000
Totts Gap complex	185,000
Westbrook-Bell house	170,000
William Ennis house	170,000
Net	\$2,933,500
Gross	\$4,283,000

Alternative 1Lease or Other Use

Abraham Van Campen house	\$ 110,000
B.B. Van Campen house	190,000
Brodhead-Heller farm	150,000
Callahan house	190,000
Captain Jacob Shoemaker house	120,000
Copper Mine Inn	250,000
Cornelius Gunn house	110,000
DeRemer house and barn	230,000
Dingmans Dutch Reformed Church	200,000
Goldhardt house	110,000
Hill house	110,000
John Cleve Symmes farm	170,000
John Michael farm	200,000
John Wesley Van Auken house (Ennis ferryhouse)	130,000
Neldon-Roberts schoolhouse	90,000
Peter Valley	1,200,000
Rosenkrans house (Flatbrookville)	200,000
Salamovka	200,000
Shanna House	180,000
Shoemaker-Houck farm	200,000
Van Gordon/Eshback farm	200,000
Net	\$4,540,000
Gross	\$6,629,000

NPS Use

Albert Knight farmhouse	\$ 5,000
Andrew Snable house	5,500
Anson Johnson house	80,000
Birchenough house	16,000
Black farmhouse	10,000
Charles S. Peirce house	360,000
Decker ferryhouse	5,000
Depue house	6,500
Jane Sproul Klaer Aspinall waterwheel house	20,000
John Turn farm outbuildings	65,000
Marie Zimmerman complex	350,000
Millbrook Village	530,000
Miller house	65,000
Millville Village ruins	30,000
Neldon-Roberts house (kitchen)	5,500
Pahaquarry Copper Mine ruins	50,000
Richard Layton house	100,000
Slateford Farm complex	265,000
Totts Gap complex	185,000
Walpack Center	650,000
Westbrook-Bell house	170,000
William Ennis house	170,000
Net	\$3,143,500
Gross	\$4,589,500

Note: See table 3 in the text for priorities.

## Alternative 2

### Lease or Other Use

Abraham Van Campen house	\$ 100,000
B.B. Van Campen house	190,000
Brodhead-Heller farm	150,000
Callahan house	190,000
Captain Jacob Shoemaker house	120,000
Charles S. Peirce house	360,000
Copper Mine Inn	250,000
Cornelius Gunn house	110,000
DeRemer house	230,000
Dingmans Dutch Reformed Church	200,000
Goldhardt house	110,000
Hill house	110,000
John Cleve Symmes farm	170,000
John Michael farm	200,000
John Wesley Van Auken house (Ennis ferryhouse)	130,000
Marie Zimmerman complex	350,000
Neldon-Roberts schoolhouse	90,000
Pahaquarry Copper Mine ruins	50,000
Peters Valley	1,200,000
Rosenkrans house (Flatbrookville)	200,000
Salamovka	200,000
Shanna House	180,000
Shoemaker-Houck farm	200,000
Van Gordon/Eshback farm	200,000
Walpack Center	650,000

Net \$5,940,000

Gross \$8,672,000

### NPS Use

Albert Knight house	\$ 5,000
Andrew Snable house	5,500
Anson Johnson house	80,000
Birchenough house	16,000
Black farmhouse	10,000
Decker ferryhouse	5,000
Depue house	6,500
Jane Sproul Klaer Aspinall waterwheel house	20,000
John Turn farm outbuildings	65,000
Millbrook Village	530,000
Miller house	65,000
Millville Village ruins	30,000
Neldon-Roberts house (kitchen)	5,500
Richard Layton house	100,000
Slateford Farm complex	265,000
Totts Gap complex	185,000
Westbrook-Bell house	170,000
William Ennis house	170,000

Net \$1,733,500

Gross \$2,531,000

Table H-4: Annual Operating Costs

	<u>Proposed Plan</u>	<u>Alternative 1</u>	<u>Alternative 2</u>
Management	\$ 470,100	\$ 470,100	\$ 470,100
Administration	200,500	200,500	352,041
Visitor Services and Resource Management	340,836	279,588	357,540
Visitor Management and Resource Protection	1,997,275	1,376,677	1,844,914
Roads/Trails/Grounds Maintenance	2,354,335*	1,732,424*	1,883,120*
Buildings/Utilities/Historic Structure Maintenance	<u>728,065</u>	<u>715,060</u>	<u>724,402</u>
	\$6,091,111	\$4,774,349	\$5,632,117

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\*Includes \$1,048,352 for maintenance of US 209, funded in part from fee collections for commercial use.

Table H-5: Phasing Schedule for Plans and Research Projects

Ongoing Studies or Plans Underway

Water quality monitoring  
 Air quality monitoring  
 Agriculture monitoring  
 Pests management plan  
 Fire management plan  
 Digital data base geographic information system

Phase 1

Landscape management plan  
 River use plan  
 Threatened or endangered species study  
 List of classified structures  
 Historic resource study  
 Cultural sites inventory

Phase 2

Backcountry use plan  
 Historic base map  
 Threatened or endangered species study (continued from phase 1)



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As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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