

general management plan *D-72 A*

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# DELAWARE WATER GAP



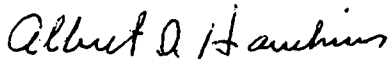
NATIONAL RECREATION AREA / PENNSYLVANIA-NEW JERSEY

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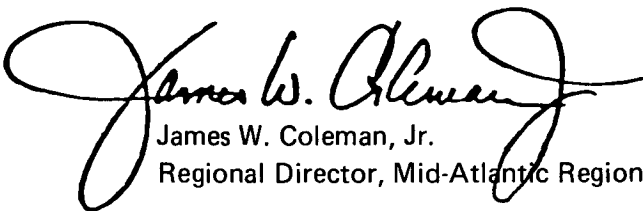
May 1, 1987



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May 8, 1987

**APPROVED:**



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May 8, 1987

# GENERAL MANAGEMENT PLAN

Delaware Water Gap National Recreation Area  
Middle Delaware National Scenic and Recreational River  
New Jersey and Pennsylvania



United States Department of the Interior / National Park Service



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## INTRODUCTION

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 preservation of scenic, scientific, and historic resources. 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 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, and the southern boundary is about 35 miles downriver, 1.5 miles beyond the geologically significant water gap. Today the federal government owns some 53,542 acres of the 69,629 acres included within the national recreation area boundary.

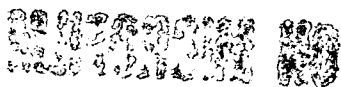
This General Management Plan will guide the overall management and use of the area's resources over the next 10 years, and it will help ensure the perpetuation of the area's natural and cultural resources and the scenic setting for present and future public enjoyment. The plan will also provide the foundation for subsequent detailed implementation plans, programs, and operations.

## LEGISLATIVE MANDATES

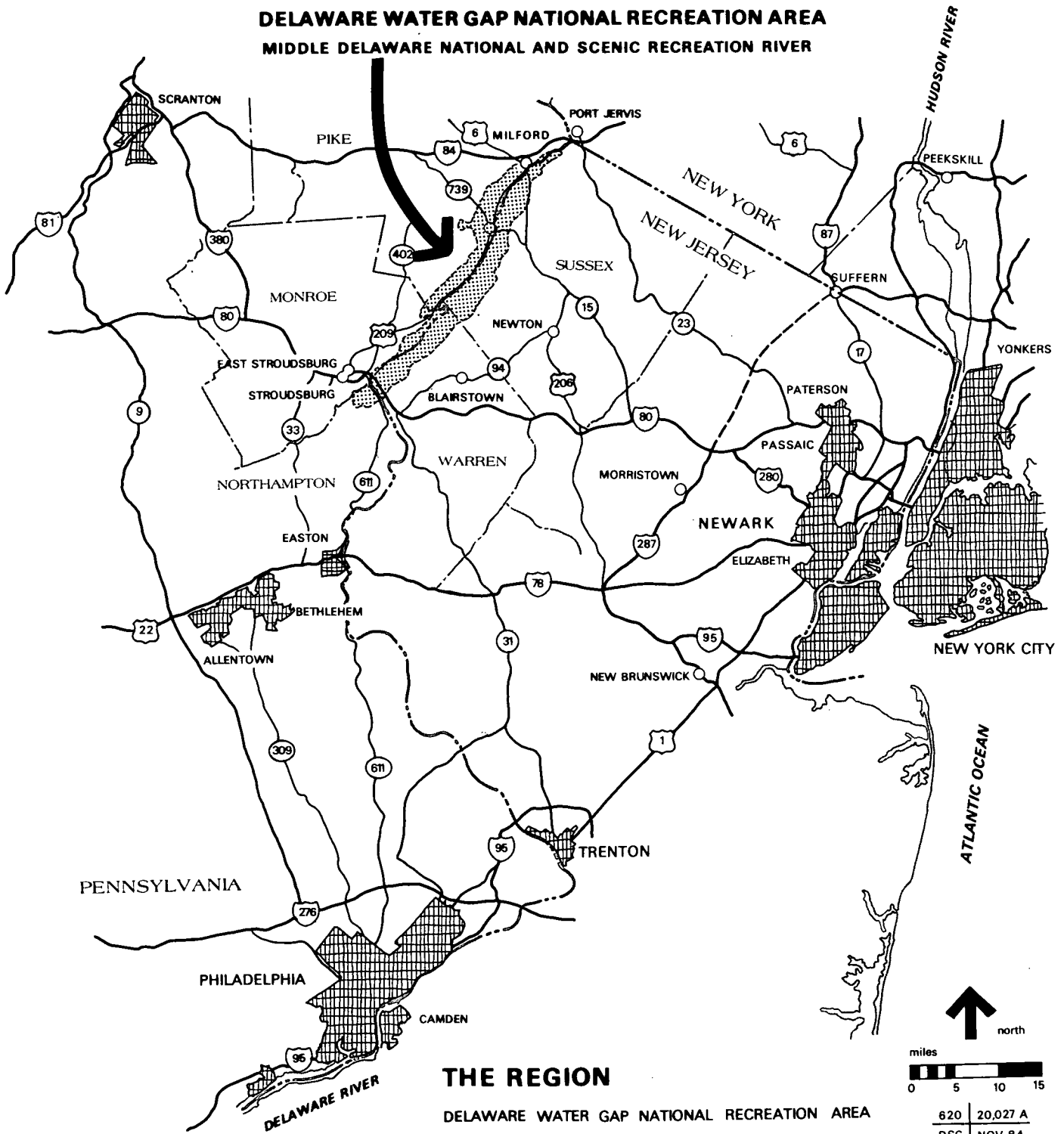
### The National Recreation Area

Delaware Water Gap National Recreation Area was established in 1965 to provide "for public outdoor recreation use and enjoyment of the proposed Tocks Island Reservoir and lands adjacent thereto . . . and for the preservation of the scenic, scientific, and historic features contributing to public enjoyment of such lands and waters" (Public Law 89-158; see appendix A). The original legislation assumed that the U.S. Army Corps of Engineers would build and manage the reservoir and that the National Park Service would administer the surrounding recreation area. However, questions about the environmental and economic feasibility of the reservoir have caused the project to be postponed indefinitely. In 1978 all federal lands that had been acquired for the Tocks Island reservoir were transferred from the Corps of Engineers to the National Park Service.

The need for a reservoir will be reassessed by the Delaware River Basin Commission after the year 2000. If it is decided a reservoir is needed at that time, and if Congress acts to build it, the National Park Service will revise its management strategies accordingly. However, for the life of this plan, the Park Service is committed to managing a free-flowing scenic and recreational river.



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



**THE REGION**

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

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## The Scenic and Recreational River

In 1978 the Delaware River within the recreation area was designated as a scenic and recreational river under the Wild and Scenic Rivers Act (see appendix A). The provisions of that act stipulate that as a scenic and recreational river the Middle Delaware

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 . . . 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 [the area's] 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.

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. Management guidelines for scenic and recreational rivers are included in appendix B.

## PURPOSE OF THE PLAN

The establishing legislation calls for a management plan to be prepared for Delaware Water Gap that will specifically provide 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. (16 USC 460o-4)

This General Management Plan outlines strategies for meeting these legislative requirements. It also seeks to achieve the management objectives that have been developed for the national recreation area (see appendix C), and it addresses issues and management concerns relating to daily operations. Specifically, the plan addresses the following issues and concerns, which were identified during public scoping sessions for the draft plan:

Conflicts among user groups will be reduced by limiting incompatible uses within the same area (for example, waterskiing and fishing), by dispersing visitor use areas to reduce crowding and traffic congestion, and by providing for a variety of uses in ways that do

not infringe on the rights of other visitors (for example, hunting will still be allowed, but safety zones will continue to be designated around visitor use areas).

Efforts will be made to convey better orientation information to visitors so that they know about recreational opportunities, and interpretive programs will be improved to foster an appreciation of natural and cultural resources.

Activities that potentially affect local communities will be coordinated with individual township or county jurisdictions. Cooperative agreements and compensation will ensure adequate services to protect visitors and area resources.

Surveys will continue to be undertaken to identify adverse effects of visitor use on natural resources, and research will continue to be conducted to provide a broader scientific basis for the management of natural resources.

Treatment levels for historic sites within the national recreation area have been determined (for example, which structures should be restored or preserved and which ones should be allowed to deteriorate). A range of structures that collectively illustrate the history of the valley will be preserved, and some of them may be adaptively used for activities that are compatible with the purposes of the recreation area. Archeological sites will be protected from destruction and unauthorized collection.

To maintain the overall scenic landscape, the plan establishes objectives for managing the unique blend of natural, cultural, and scenic features.

Cost-effective facilities have been planned to meet visitor and management needs in the most efficient way possible. Facilities will be judiciously expanded for both water-oriented and land-based activities.

The functions of numerous roads and highways throughout the recreation area have been evaluated. Key entrance points will be designated for visitors in order to reduce traffic congestion in local communities, and roads that are no longer needed will be closed and returned to a more natural appearance.

#### DEVELOPMENT OF THE PLAN

The Draft General Management Plan / Environmental Assessment was released in June 1986. The proposal presented in that document is the basis for this approved plan, but the actions have been revised to take into account public comments. The range of public comments is summarized in appendix D.

The major changes that have been incorporated in this plan include scaling down the level of development (for example, one of the swim beaches has been eliminated, and the size of another beach has been reduced) and limiting the number and size of concession developments. With regard to recreational activities, boat speed limits on the Delaware River have been adjusted in certain areas to allow for waterskiing, and backcountry camping will be allowed on a dispersed basis under a permit system instead of requiring backcountry campers to use only designated sites. Additional short trail segments (hiking, bicycling, and bridle trails) will be included in the trail system to link trails and expand recreational opportunities. For historic resources a wider range of treatment levels are being considered to allow for fuller implementation of the historic property leasing program. Concerns of local residents about increased traffic have been addressed by designating six key entrances to the recreation area so that visitors are not encouraged to use local roads that may not be designed to handle high traffic volumes.

Because the plan has been revised to take into account public comments on the draft plan, and because there are no significant adverse environmental effects associated with implementing the plan, a finding of no significant impact has been signed by the regional director of the Mid-Atlantic Region (see appendix E).

This approved plan has been reformatted to simplify the presentation because alternatives are no longer being considered. The main elements of the plan are land protection and management, resource management (including natural, cultural, and scenic resources), visitor use, administration and operations, and general development. The environment of the Delaware Valley is also briefly described.

## INTERRELATIONSHIPS WITH OTHER PLANS AND PROJECTS

Delaware Water Gap National Recreation Area will be unavoidably affected by other plans and projects in the region. Some of these are the responsibility of the National Park Service, and others are the responsibility of other governmental agencies and private entities. The most important interrelationships are briefly described below.

### 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, and a center for performing arts could be developed at any of several 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; 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.

#### Steamtown National Historic Site

Steamtown is a newly authorized unit of the national park system. It is related to Delaware Water Gap National Recreation Area by means of the Erie-Lackawanna railroad line, which runs from Scranton to and through Delaware Water Gap. Efforts will be made to coordinate activities relating to the national historic site and the recreation area.

#### Appalachian National Scenic Trail

A portion of the Appalachian Trail passes through the national recreation area, and it will continue to be managed by the National Park Service in accordance with the mandates of the National Trails System Act. Plan proposals that directly relate to the trail are discussed under "Resource Management," "Visitor Use," and "Administration and Operations."



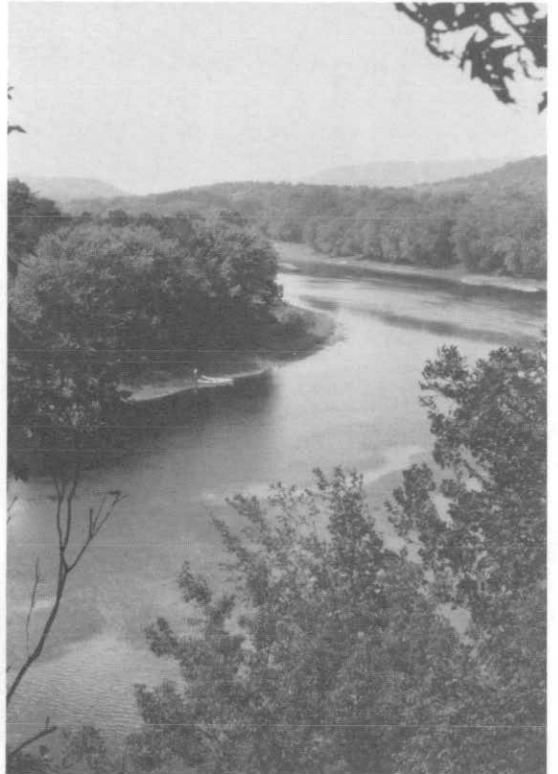
## Natural Resources



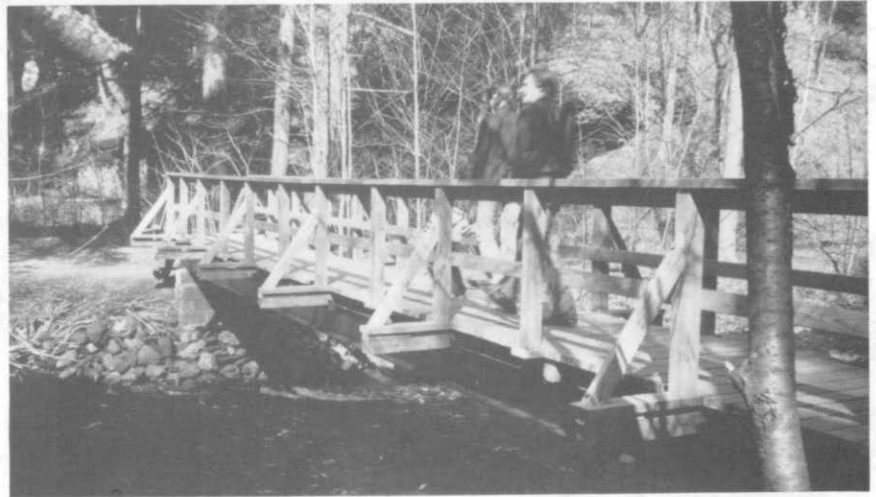
## Cultural Resources







# Scenic Resources



## Recreation Resources

**GENERAL MANAGEMENT PLAN**



## LAND PROTECTION AND MANAGEMENT

When Congress established Delaware Water Gap National Recreation Area, it included within its boundaries "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, of which nearly 53,542 acres are federally owned. In accordance with the legislation, these lands are to be used for recreation; for the preservation of scenic, scientific, and historic resources; and for resource utilization as long as the primary values of the national recreation area are not impaired.

Lands within the national recreation area will be managed to provide for public access to the Delaware River and other recreational sites and opportunities; to help ensure the maintenance of water quality; and to perpetuate the integrity of all scenic, scientific, and historic resources.

### LAND PROTECTION STRATEGY

Several methods will be used to protect the resources of Delaware Water Gap, including agreements with other public or quasi-public owners, zoning of privately owned lands through township ordinances, and acquisition of a partial or full interest in a property.

Not all lands in federal ownership are or will be 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 will continue to be permitted and will be overseen by the recreation area staff:

Extended tenancy or life estate--Previous landowners and spouses may 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 and one extended tenancy for 2.5 acres.

Year-round residential use--Five-year special use permits (sometimes called leasebacks) are allowed for persons making the premises their domicile. All existing renewable permits are scheduled to terminate on September 30, 1990. Currently, there are 37 such residences on approximately 84 acres.

Agricultural use--Agricultural operations are allowed under 23 variable length use permits (3,011 acres). 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--School boards, colleges, associations (historical, environmental, and craft), and others may use prescribed structures and areas under special use permits or cooperative agreements for the benefit of students, apprentices, and others interested in particular activities. The general public also benefits because interpretive programs are available and craft items are offered for sale. Many of these uses occur 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 and three concession permits for approximately 42 acres.

A Land Protection Plan has been prepared to ensure that lands and resources within the national recreation area boundary are protected and that suitable lands are available for public use. It analyzes specific protection techniques for all privately owned tracts, with emphasis on techniques other than acquisition (including zoning, exchanges, donations of interests in lands, and cooperative agreements). Zoning will be relied upon unless it cannot provide the necessary degree of protection. Fee acquisition will be pursued only in hardship cases or when it is the sole method to adequately ensure resource protection or to guarantee essential public access to and use of federal lands. Emergency acquisition will take place only when resource destruction is imminent and depending on the availability of funds. Because the ownership of private lands within the recreation area changes frequently, the Land Protection Plan is updated every two years. For further information about specific recommendations for individual tracts of land, refer to the current Land Protection Plan.

This General Management Plan incorporates the broad recommendations of the Land Protection Plan, and it provides for their implementation. However, the General Management Plan recommends one change: the 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.



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

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

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



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Table 1: Land Protection Plan Summary  
Delaware Water Gap National Recreation Area

Total Authorized Acres	69,629
Current Ownership within the Boundary (other than water):	
Federal (NPS jurisdiction) - fee	53,541.50
State or local - easement	7,621.04
Private	<u>4,564.35</u>
Total	65,726.89
Methods of Protecting State, Local, or Private Lands:	
Exclusion from boundary	259.12
NPS fee acquisition	2,246.77
Less-than-fee acquisition	2,398.54
Cooperative agreement	<u>7,280.96</u>
Total (as of January 1987)	12,185.39

### 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, the legislative mandates, and the management objectives established for the area. Lands have been assigned to one of four management zones--natural, historic, development, and special use. Each of these zones has been divided into subzones to allow for particular 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  
Delaware Water Gap National Recreation Area

<u>Zone/Subzone</u>	<u>Acres</u>	<u>Percentage of National Recreation Area</u>
Natural Zone		
Outstanding natural features	16,838	24.2
Resource management	38,704	55.6
Historic Zone	1,053	1.5
Development Zone	849	1.2
Special Use Zone		
Nonfederal public land	7,605	10.9
Nonfederal public land with an NPS easement	16	0.1
Quasi-public land	1,329	1.9
Private land	964	1.4
Private land with an NPS easement	<u>2,271</u>	<u>3.3</u>
Total	69,629	100.0

## Natural Zone

Lands in the natural zone are managed for the conservation of natural resources, and the National Park Service maintains primary control over lands and activities within this zone. The following subzones are designated:

Outstanding Natural Features Subzone--This subzone consists of features with high intrinsic or unique values, and the Delaware River itself is the premier feature of the recreation area. Numerous geologic features in this category include the water gap and its talus slopes, Dingmans Falls, the Kittatinny Ridge, drumlins, and kettle holes. Among the outstanding biological features are the hemlock and rhododendron glades native to the Pennsylvania Plateau and the Kittatinny Ridge, interesting rock flora, and critical habitat areas for endangered species. One exception within this subzone is the categorization of Toms, Dingmans, Raymondskill, and Flatbrook creeks as part of the resource management subzone in order to allow for the continuation of stocking programs.

Many areas in the outstanding natural features subzone are open for visitor use, and they will continue to be focal points for recreational and interpretive activities. However, if ongoing research indicates that areas need greater protection from resource degradation, then public use may be limited (for example, severely degraded areas will be closed to visitor use to allow them to recover). Development in this subzone will be minimal (such as trails, interpretive waysides and exhibits, and small parking areas).

Resource Management Subzone--This subzone is the largest in the recreation area, and it includes natural and man-made features that have contributed to the scenic diversity of the recreation area. The resources include mature forest vegetation and primarily natural areas around lakes and waterfalls, as well as open fields and farmsteads. Developed areas are minor in scale and are compatible with the environment. Facilities include trails for hiking, bicycling, cross-country skiing, horseback riding, and snowmobiling; interpretive signs and waysides; and small parking areas. All the lands and resources in this subzone will be maintained to enhance scenic diversity, wildlife habitat, and natural and man-made systems, as appropriate within certain landscape types.

## Historic Zone

All lands with resources listed on or considered eligible for the National Register of Historic Places are part of the historic zone (see appendix F). Appropriate visitor uses include sight-seeing and study programs. Facilities (for example, parking areas, wayside exhibits, and interpretive trails) will be limited to what are necessary for protection and interpretation. Adaptive uses will be encouraged and permitted as long

as the qualities that make the historic resources significant are not affected.

### Development Zone

This zone includes all development sites and intensive visitor use areas. Development includes visitor and administrative building complexes, parking areas, major roads, and utilities. Visitor use areas include beaches, boat ramps, fishing boat/canoe launches, open playfields, developed campgrounds, and picnic areas. Facilities such as the Pocono and Walpack Valley environmental education centers, Mohican Outdoor Resource Center, Weygadt, and Watergate--all of which provide opportunities for the public to learn about the resources of the national recreation area--are also included in the development zone.

### Special Use Zone

All lands where the National Park Service does not have primary management control are part of the special use zone. The land uses are diverse, ranging from public recreation areas to private residences. Five special use subzones have been designated.

Nonfederal Public Land Subzone--Currently, nearly all nonfederal public lands are used in ways that are 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 will continue to try to acquire this property and to terminate this incompatible use. Lands in this zone will continue to be managed by nonfederal agencies. Where appropriate, agreements will be initiated with the other agencies to specify conditions for management.

Nonfederal Public Land with NPS Easement Subzone--This subzone is similar to the previous subzone except that the National Park Service holds an easement for the nonfederal public areas. This affords the Park Service a greater opportunity to work with the landowners to control use and protect 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 bridges that are held by the Delaware River Joint Toll Bridge Commission.

Quasi-Public Land Subzone--This category includes cemeteries and lands owned by utility companies and railroads. Except for five tracts proposed for fee or easement acquisition, none of the lands in this subzone will be acquired. Cemeteries will 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 will not be acquired by the federal government for one of the following reasons: local zoning restrictions provide an acceptable level of protection, lands are proposed for exclusion from the boundary, or no interest (or a very limited interest) is needed as long as existing uses continue. Lands in this subzone may be acquired in cases of demonstrated hardship, major zoning violations, or where incompatible development is 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. In these cases the Park Service will work closely with the individual owners to maintain land uses that are compatible with the purposes of the recreation area and to ensure that the mutual interests of both owners are protected.

## RESOURCE MANAGEMENT

This General Management Plan recognizes three resource categories that are essential components of the Delaware Water Gap landscape--natural resources, cultural resources, and scenic resources. Natural resources will be managed to ensure their preservation. Cultural resources will be managed to protect and preserve the broad patterns of human occupation. Scenic resources will be managed to perpetuate the mosaic of color, form, and texture that has resulted from a unique blending of natural and cultural resources within the Delaware Valley.

### NATURAL RESOURCES

#### Plants and Animals

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

No plants or animals on the federal endangered or threatened species list have 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 Delaware Valley provides critical wintering habitat for bald eagles, and winter populations have continued to grow since 1980. As eagle populations in adjacent states are expanded through hatching programs, it is conceivable that eagles could be nesting in the area within the next 10 years. Because the Delaware Valley is within the range of some threatened or endangered species, the National Park Service will continue to conserve the ecosystems that support them. Surveys will be undertaken to determine the presence of any endangered or threatened species on sites being contemplated for development, alteration, or public use.

Both Pennsylvania and New Jersey maintain lists of important plant and wildlife species, and several sites containing these species have been located. The National Park Service will continue to protect such plants and their habitats.

Fish and wildlife in the national recreation area will continue to be managed as a cooperative endeavor with the states. Efforts will 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 will continue; however, habitat manipulation or development will 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 may be more intense in a development zone than in a natural zone).

When it is necessary to manage a pest, all physical, cultural, and other nonchemical techniques will have to be proved inadequate before a chemical may be used. The use of a chemical will be integrated with nonchemical techniques to achieve the most effective control. Each chemical used must be approved by 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 ensure that they comply with this policy and to help them develop the most effective pest management techniques possible.

### Mineral Resources

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 (16 USC 460o-3). There is no mining in the national recreation area at present, nor are there any proposals for exploration or development. Because mining will impair other resource values, and because it will adversely affect recreation potential and natural and cultural resource preservation, it will not be authorized.

### Wetlands and Prime or Unique Farmlands

Swamps, marshes, wet meadows, and other wetlands within the national recreation area have been mapped 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"). Also the effects of management actions on prime or unique agricultural lands will be analyzed.

### Floodplains

Extensive areas of the national recreation area are within the floodplain of the Delaware River and its tributaries. 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.



This General Management Plan is in compliance with the Water Resources Council guidelines for implementing EO 11988. The 100-year floodplain has been delineated (see Topography and Floodplain map in "The Delaware Valley Environment" section), actions that will occur in the floodplain have been identified (see appendix G), and the intent to take these actions has been published.

### Water Resources

The entire Delaware River segment within the national recreation area is free-flowing, without impoundments or areas of slack water, and the water quality is high enough to support aquatic life and allow for recreational use. In fact, water quality is good to excellent, and it is generally higher than the standards established in the Delaware River Basin Compact (sec. 3.20.4-5). The nondegradation of water quality and the retention of existing high standards are of paramount importance in the protection of the qualities that originally qualified the river for designation under the Wild and Scenic Rivers Act.

Future visitor use activities and new facilities that could affect water resources will be carefully evaluated and will comply with the provisions of the Federal Water Pollution Control Act, as amended. The headwaters of most of the streams that flow into the Delaware lie outside the national recreation area's boundary, and land use activities along those streams, including sewage and wastewater disposal, could affect water quality within the recreation area. The National Park Service will consult with the Delaware River Basin Commission and other appropriate federal, state, and local agencies within the river basin to maintain or improve existing water quality and to eliminate or diminish water pollution.

Many upland lakes and impoundments could become eutrophic because of their small 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 recreation area are artificial (i.e., created by dams), some form of control or a chemical will be used as appropriate to allow for recreational use. For example, Hidden Lake is an artificial lake, and its water will be treated so swimming may continue; but Crater Lake is a natural lake, and its water will not be treated, thus allowing normal community dynamics to proceed without interruption.

### Research Programs

Natural resource management programs will 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 visual resources, 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 will be based on the need to protect scenic, scientific, and historic features and to provide for water-oriented recreation. Specific information about each of the research programs is contained in the "Natural Resource Management Plan" for Delaware Water Gap.

Surveys to meet the requirements of the National Environmental Policy Act and of various other laws and executive orders will be done on a site-specific basis, preceding design or alteration of a site, or as part of a research project. Surveying will be done to meet the requirements of the Endangered Species Act of 1973 (PL 93-205, 87 Stat 884) and EO 12088 ("Federal Compliance with Pollution Control Standards").

#### Administrative Agreements

The National Park Service will cooperate and consult with several agencies in implementing the natural resource management program. Existing memorandums of understanding with the Pennsylvania Game Commission, the Pennsylvania Fish Commission, and the New Jersey Division of Fish, Game, and Wildlife cover fishing and hunting regulations and seasons. To ensure that natural resources are effectively managed, these three agencies and the National Park Service will share responsibility for planning, funding, and implementing natural resource management actions. More prescriptive agreements will be initiated with these agencies to allow for the collation and exchange of important inventory and use data; to help achieve agreement on vegetation management, game stocking, and use regulations; and to share professional expertise.

## CULTURAL RESOURCES

The goal of cultural resource management will be to ensure that cultural and scenic resources are considered when meeting recreation development needs and that the rural scene is protected. Archeological sites will be protected from pothunting and vandalism, and vacant significant structures will be protected from deterioration, vandalism, and arson. Interpretive programs will be aimed at making the public more aware of the values of these resources, and patrol and enforcement programs will be intensified. The locations of historic, architectural, and archeological resources are indicated on the Cultural Resources map in "The Delaware Valley Environment" section, and they are described in appendix F. Specific management actions for archeological and historic resources are described below.

### 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 F). 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 will be to protect subsurface resources in place and where necessary to mitigate unavoidable effects from ground disturbance.

The first step in protection will 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 will be the best protection for these resources. If necessary, access to some areas will be restricted, or sites will be covered with fill to protect them.

The second step in protection will be research to locate and document archeological sites and to provide for appropriate management guidance over the next 10 years. Research will be conducted in two phases. Phase one will 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 will comply with the National Historic Preservation Act, as amended; the Archeological Resources Protection Act; EO 11593 ("Protection and Enhancement of the Cultural Environment"); and 36 CFR 800 ("Regulations for the Protection of Historic and Cultural Properties"). Phase two will be to evaluate the significance of sites and to determine their contextual, spatial, and temporal extent.

Because archeological excavation and collection is in itself a destructive process representing an irreversible and irretrievable commitment of the resource, excavation will be avoided, and nondestructive investigation

techniques will be used as much as possible. Until the described research program of inventory and evaluation has been completed, the interim goal will be to protect archeological sites in place and to recover data from sites that will be unavoidably lost.

Many subsurface remains of farmhouses, fort sites, ferryboat river crossings, and similar historic period ruins exist throughout the recreation area, and they have already been identified. Further studies will be undertaken as part of the archeological research program to complete the needed data base.

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

Beyond the life of this General Management Plan, limited and large excavations and investigations may be undertaken. Known sites will be protected and preserved for future archeological research. Additional sites will be nominated to the National Register if research and study reveals that they are significant or if significant new sites are discovered. Archeological sites of lesser significance will be protected according to NPS regulations, policies, and guidelines. Avoidance of a site will provide optimum protection.

### Historic Resources

Historic structures and sites in Delaware Water Gap National Recreation Area have been inventoried, and significant sites have been or are being entered on the National Register of Historic Places and are protected under section 106 of the National Historic Preservation Act and 36 CFR 800. The qualities of structures and sites owned by the National Park Service are listed in table 3, and their significance is described in appendix F. A representative spectrum of these properties will be preserved to show how man has adapted to and changed the Delaware Valley landscape. The qualities listed in the table were used to determine priorities for preservation and the level of treatment. Some structures with lower priority numbers may be dealt with before those with high priorities as a result of administrative needs or if private parties show a particular interest in protecting a specific structure. Any actions taken on significant structures will maintain the historical, architectural, or cultural integrity of the structure or site at a professional standard.

Levels of Treatment. The various levels of treatment for structures are defined below:

Table 3: Proposed Management of NPS Historic Properties  
Delaware Water Gap National Recreation Area

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

\*Existing use and treatment level to continue.

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

\*Existing use and treatment level to continue.  
 \*\*National Register eligibility is being reevaluated.

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

Preservation--the application of measures, including maintenance, to sustain existing form, integrity, and material of structures and settings (excluding reconstruction, 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)

Rehabilitation--returning a structure to a state of utility through repair or alteration that makes possible an efficient contemporary use while preserving portions or features that are significant to its historical values

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

As indicated by table 3, exterior treatment will range from restoration to benign neglect or removal, but not every structure will receive the maximum level of treatment possible. Some structures require only minimal work to make them available for their best use, but many of them need substantial repair or replacement of deteriorated parts. Interior treatment will range from partial restoration to benign neglect or removal, with the majority of structures being rehabilitated or stabilized. The level of action on the interior of each building will be subject to the uses determined for that structure. To facilitate adaptive use of some historic structures, small extensions or additions may be attached to buildings to accommodate utility systems or provide for handicap access. The necessity for any addition to a structure will be evaluated in terms of its effect on the significant qualities, and any modification will be done as compatibly as possible.

Some structures on the National Register will be designated for benign neglect because of minimal (local) significance and the excessive cost of rehabilitation. These structures will be recorded and allowed to deteriorate (that is, no treatment to preserve or stabilize a structure beyond that needed for public safety will occur). In time the sites will revert to a natural condition. If an individual or private group shows a financial or other commitment to preserve a structure or site that is proposed for deterioration, that assistance may be accepted by the National Park Service. The majority of buildings designated for benign neglect are in extremely poor condition and are a public safety hazard. Although they contribute to the collective cultural fabric of the recreation

area, their eventual loss will not affect the character of other significant structures in adjacent areas.

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

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

Adaptive Uses. Possible uses of federally owned historic structures and sites range from NPS administrative and interpretive programs to leasing by private groups and individuals for compatible activities. Continued adaptive use or occupation of a structure or site will provide protective, visual, and sometimes interpretive benefits. Capacities of each resource will be determined so that no irreversible damage is caused. For example, existing structures or their outbuildings may be used to house machinery and harvested crops in conjunction with agricultural uses under the landscape management program. Single-family residential occupancy will be permitted in some houses for NPS employees and may 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. For any structure that is leased, appropriate agreements will be established. The significant aspects of the structure will have to be preserved, and the integrity of the building and its setting will have to be maintained in order for a historic structure to be leased. Additionally, the National Park Service will advise holders of special use permits and leases about the significance of a resource within their purview and will provide technical assistance. Lessees or special use permittees will have to obtain permission from the Park Service before undertaking any activity that may affect the structure or its immediate surroundings. The uses listed in table 3 may be modified to allow for additional uses acceptable under the leasing program.

As indicated by table 3, adaptive uses can include interpretive and educational functions. The Peters Valley and Walpack Center historic districts are excellent examples of the potential to extend adaptive uses. Activities at Peters Valley, including crafts, 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 the area's architectural style. Walpack Center offers a similar potential for adaptive uses, such as lodging, under the historic property leasing program as well as NPS administrative uses that can enhance a village atmosphere.



Several historic structures have direct interpretive value and will be stabilized and restored. Van Campen Inn is such a structure that has been restored and is available for interpretive use. Activities that can enhance the historical scene (for example, the initiation of a ferryboat crossing similar to those that used to exist along the river) will also be considered. At Millbrook Village, which is an assemblage of buildings, interpretation will continue through the use of four historic buildings and other structures that have been moved to the site. Additional structures may be moved to this village to enhance the interpretive themes, but these structures will 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 such an operation is a primary interpretive requirement.

Cultural Landscapes. Cultural landscapes will be retained by keeping vegetation and agricultural use patterns near historic structures. Outbuildings, farm support structures, and fence rows will be kept wherever possible to maintain farmsteads and existing landscape configurations. Proposed treatment levels for related structures will depend on their physical condition and the potential need of a structure for agricultural purposes or adaptive uses. Based on the contribution of all features, individual structures could either be kept, or recorded and removed, with their component pieces being used for salvage materials to restore other historic properties.

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, will be evaluated as part of the area's landscape management plan to determine whether it is eligible for nomination to the National Register as a rural historic district.

The Old Mine Road, Appalachian National Scenic Trail, and other historic sites will 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 will affect the road or trail and their respective corridors will have to meet requirements for preserving their historical and cultural integrity.

Flood and Fire Hazards. Potential uses of any historic structure 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, will be prohibited unless specific protection measures have been taken. Flood-proofing measures to protect historic properties will be designed so as not to adversely affect the historical integrity of the structure or scene. All such actions will be in accordance with Delaware River Basin Commission regulations.

Historic structures not constantly occupied will be provided with fire detection/suppression and intrusion alarm systems. The type of systems used will 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.

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

Native American Lifestyles. Native American interests and accurate demonstrations of cultural lifestyles could be interpreted and merged into the overall interpretive program for the recreation area. Individual proposals will be evaluated on a case-by-case basis and will be based on demonstrated specific heritage ties to the area, the relationship of a program 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. Uses of existing, privately owned cultural resources that are compatible with the purposes of the recreation area will be allowed to continue, and protection through an easement for a building or site will be sought from existing owners. The purpose of an easement will be to protect a site or a structure's facade, plus the immediate surroundings, outbuildings, and vegetation. Each property will be evaluated on a case-by-case basis to decide whether all or specific exterior parts of a building should be protected, and the adjacent property will be evaluated to determine to what extent the setting should be maintained or reestablished. The National Park Service will provide technical assistance for activities that owners want to undertake. When easements are not feasible, fee acquisition of a significant property may be necessary.

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

Table 4: Recommended Protection Measures and Future Uses  
for Nonfederally Owned Historic Properties in  
Delaware Water Gap National Recreation Area

<u>Property</u>	<u>Protection Measures</u>	<u>Potential Use</u>
Dingmans Ferryhouse, Pennsylvania	Fee acquisition	Visitor information and orientation
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	Scenic vista area, residential use (NPS or lease)
Old Mine Road Historic District, New Jersey:		
- John Wesley Van Auken House (Ennis ferryhouse)	Fee acquisition	Adaptive use at Sandyston Beach
- Rosenkrans House, Flatbrookville	Fee acquisition	Residential (NPS or lease)
- Rosenkrans Ferryhouse	Fee acquisition	Scenic river access, residential use (NPS or lease)
- 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

Further research about cultural resources and their history will be conducted so that the existing List of Classified Structures and the Cultural Sites Inventory for the national recreation area can be updated and so that more information can be gathered for interpretive purposes. The existing Historic Base map will also 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 historic resource study for the recreation area will be prepared to identify historical themes and contexts and to evaluate existing tangible resources as well as intangible values not represented by sites and

remains. As part of the historic resource study, National Register forms will be prepared for eligible properties that are not yet listed on the register. Other properties that have been inventoried but not formally determined eligible or not eligible for listing on the National Register will also be evaluated and formally considered. Themes described in the "Visitor Use" section will also be expanded on in the resource study to enhance cultural resource interpretation.

As part of the landscape management plan (see the "Scenic Resource Management" section) all cultural features will be described, and their contribution to the eligibility of an area as a rural historic district will be evaluated.

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

#### SCENIC RESOURCE 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 Delaware River, its tributaries, 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 active landscape management, much of the area will eventually return to mature forest, resulting in the loss of the scenic and historical mix of open land and forest.

The goals of the landscape management program are to conserve the scenic qualities of the recreation area while enhancing the diversity of wildlife habitat and recreational opportunities. Some change in the landscape will be inevitable over the long term. However, the intent will be to manage change so that it is incremental rather than radical and to enhance the important qualities of the present landscape.

Landscape management efforts will apply only to lands in the resource management subzone (approximately 56 percent of the recreation area). The mix of vegetation will be managed to maintain approximately 20 percent open land, 40 percent productive forest, and 40 percent maturing forest. Management techniques will include farming (under the agricultural permit program) and tree cutting. Areas such as the Kittatinny Ridge and the Pocono Plateau, which are in the outstanding natural features subzone, will not be subject to resource management actions.

A landscape management plan will be prepared to identify specific strategies and management techniques for individual tracts of land. It will also identify rural historic districts and locations for scenic vistas. Preliminary recommendations are that all existing open areas remain open and that additional lands that were open in the last 20 years or so be returned to that appearance. Forested areas need to be further analyzed to determine which areas should be cut or allowed to mature.

The landscape management plan will 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 will serve as an umbrella document for specific action plans dealing with river management, the backcountry, agricultural activities, woodlands, fires, scenic vistas, vegetation and wildlife habitat, archeological resources, and historic structures. The management plan will 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 will be identified and evaluated to determine their contribution to the cultural landscape. Computer mapping could be employed 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.

## VISITOR USE

The goal of visitor use will be to provide the widest possible range of recreational opportunities for visitors without allowing natural or cultural resources to be degraded. Activities will be dispersed throughout the national recreation area to minimize conflicts between user groups. People will have a chance to appreciate the aesthetic, educational, and inspirational qualities of the resource, as well as enjoy themselves. NPS programs will be aimed at both individuals and groups. Programs will also 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 recreation area.

The National Park Service is directed to provide public outdoor recreation benefits at Delaware Water Gap National Recreation Area under the establishing legislation (PL 89-158). The Park Service is also charged with carefully planning and regulating use so that existing resources are perpetuated and maintained unimpaired for future generations. Therefore, uses must be resource-based and not consumptive of the resources themselves.

No fees will 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 plan, as well as the rising visitation trends that the recreation area has been experiencing, visitation trends for 1996 could range between 5.0 million and 6.9 million visits.

## ORIENTATION AND INFORMATION

The goal of orientation and information programs will be to tell visitors about what opportunities are available so that they can make the best use of their time and fully enjoy the recreation area. Recreational activities, fees, schedules and amount of time needed, equipment and physical capabilities required, safety precautions, and regulations will be described, as well as overnight accommodations within the national recreation area. Facilities, brochures, and personnel will be strategically placed to help ensure visitor enjoyment and safety, consistent with resource protection. Visitors will be directed to key entrance points where orientation and information facilities will be located. This will 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 will be designed to present an attractive and readily identifiable image for Delaware Water Gap National Recreation Area.

Information about the national recreation area will 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 will be made available at these locations, and if space allows and agreements can be reached, interior wall graphics or outside exhibits will also be used. Interpretive materials and publications will continue to be sold by the Eastern National Park and Monument Association.

## INTERPRETATION

The goal of interpretation will be to foster a public understanding and appreciation of the natural and cultural processes that have shaped and are continuing to shape the Delaware Valley landscape. Natural history themes will 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 will also be highlighted. Cultural history themes will 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. Overall, the interpretive program will give an overview of a particular regional American way of life and 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 will be interpreted 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 will be provided here, and in summer a geologist/interpreter will 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 will be interpreted in a manner appropriate to their significance and location. Brochures for self-guiding interpretive trails and guided walks will help visitors appreciate specific features and their settings.

The Dingmans Falls and Weygadt areas will 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 will be used as means to relate this theme.

Environmental education at the Pocono and Walpack Valley environmental education centers and Mohican Outdoor Resource Center will 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 will 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 F. Living history interpretation will be conducted at Millbrook and Slateford Farm. At Millbrook NPS personnel and at times members of cooperating organizations dressed in period costumes will provide demonstrations, tours, and special events about historical occupations, crafts, and cultural activities in a mid-1800s village. Additional structures such as a mill can be added to Millbrook to reinforce the village setting. At Slateford Farm slate production and agriculture, along with their roles in the regional economy and the story of the families who lived at the farm, will continue to be interpreted by staff with living history demonstrations. The Montague Association for the Restoration of Community History (MARCH) interprets 18th century life at the Neldon-Roberts schoolhouse.

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

Handouts for self-guided tours, or simple signs or plaques keyed to particular themes, will 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 F) may help visitors learn about the vernacular architectural style in the Delaware Valley. Because some of the structures will be in use by tenants or lessees, or will be privately owned, tours will 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, education, and research. This can be accomplished by establishing a 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 will not be actively interpreted on-site because providing interpretation or signs without ensuring adequate protection can lead to the destruction of sites. Eventually an excavated site may 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 can be conveyed through this means.

A tradition of artistic expression has long been associated with the Delaware Valley. Concerts at Watergate and crafts at Peters Valley, which is devoted to education in contemporary handicrafts, continue this tradition. Visitors to Peters Valley will 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, or the making of apple butter--can be encouraged by developing ties to communities throughout the region. One possibility is for local community groups to collectively host special events or celebrations, focusing on local history and lifestyles. The annual Millbrook Days celebration in October, staged by the 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 will be continued and may be expanded.

#### Recreational Activity Interpretation

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

#### RECREATIONAL USE

The National Park Service will encourage the widest possible range of appropriate recreational activities, in accordance with the establishing legislation. Besides pursuing activities focusing on the Delaware River, visitors will also be encouraged to hike, bicycle, and take horseback rides so they can see natural and cultural settings close at hand. Additional recreational activities and services will be provided by nonfederal public agencies, cooperating associations, private organizations, and private vendors.

#### Activities Provided by the National Park Service

Water Activities. The Delaware River will continue to be the focus of recreational activities, including canoeing, tubing, fishing, motorboating, and swimming. These activities are not always mutually compatible; for

example, motorboats in combination with nonmotorized craft present serious safety hazards at times when the narrow river is being heavily used. Therefore, seasonal speed limits will be established. From April through September, the peak use period, a 10-mph speed limit will be enforced for the entire river; however, to allow waterskiing a 35-mph speed limit will be allowed at the Prices Landing pool year-round and at the Smithfield pool from late May through September. From October through March a 35-mph speed limit will be enforced for the entire river. Specific dates for enforcing changes may be adjusted slightly because of fishing seasons or water conditions, and the effective dates will be announced. Motorboats will not be permitted on upland lakes.

Protected river swimming areas (that is, beaches with lifeguards) will be continued at Milford and Smithfield, and a new beach will be developed at Sandyston. Protected swimming will be available at Long Pine Lake, if developed, and continued at Hidden Lake as long as water quality is maintained.

Driving Tours. Sight-seeing and pleasure driving will continue to be popular activities throughout the year, especially in spring and fall. Driving tours will be developed through Flatbrook Valley, along Old Mine Road, and on PA 611 and US 209. The tour routes will be shown on park maps, and road signs will be posted to mark routes; interpretive brochures and wayside exhibits will also be provided.

Trail Use. Trails through the recreation area will offer visitors new perspectives on natural and cultural resources. Opportunities to get off the main traffic arteries and out of the developed areas will help disperse visitor use and expand the variety of activities available.

Day and overnight hiking opportunities will be expanded by developing a trail network. Further development of trails for hiking, bicycling, and horseback riding will be the responsibility of clubs and organizations whose interests will be served by a more extensive trail network. Various old roads that are no longer needed for vehicle access will be made available for hiking, horseback riding, and seasonal hunting access. (The proposed trail system and uses are shown on the General Development map.)

The Appalachian National Scenic Trail, a designated unit of the national trails system, will continue to be a primary resource for hikers. The trail passes through areas that provide for maximum outdoor recreation potential and conservation of nationally significant scenic, historic, natural, or cultural qualities. The main use will be by through-hikers, and possible crowding will be reduced by the development of additional connecting and through-trails elsewhere in the national recreation area for day hikers. The Appalachian Trail is open only to hiking; horseback riding and bicycling are not allowed. To preserve a natural experience, vehicular access has been limited in the vicinity of the trail.

For snowmobiling one route has been designated off River Road in Pennsylvania. Roads not plowed in the winter will be available for

snowmobile use. Hiking trails will be available for cross-country ski use, and parking areas will be plowed to indicate which trails are recommended.

Overnight Use. Camping has long been a traditional use in the Delaware Valley. To meet increasing needs for various overnight experiences within the national recreation area, three types of camping opportunities will be provided--developed camping (with water and comfort facilities), primitive backcountry camping (without comfort facilities), and group camping.

Commercial campgrounds near Delaware Water Gap accommodate much of the demand for developed camping, but some additional camping facilities are needed in the recreation area to complement the broad range of day activities. Such facilities will be dispersed and limited in size to avoid direct competition with the many commercial and nonfederal developed campgrounds in the vicinity. Stays will be limited, probably to a maximum of two weeks, so that as many visitors as possible can stay overnight in the park. It is expected that New Jersey will continue to provide developed camping adjacent to the river at Worthington State Forest. NPS concessioners will offer developed camping at Dingmans, the Kettle Holes, and on the Kittatinny Ridge at Long Pine Lake (see General Development map).

Backcountry camping at Delaware Water Gap provides an opportunity for hikers and canoeists to experience areas that are more remote than heavily visited day use areas and developed campgrounds. A permit system will help disperse use and prevent overuse of particularly fragile areas. Camping along the Appalachian National Scenic Trail is subject to national trail system guidelines, which require that campsites be out of sight of the trail and any other campers. Campsites are to be established with minimum disturbance of natural resources.

Other overnight uses now accommodated at environmental education centers and the Old Mine Road youth hostel will be continued.

Commercial lodging operations at Long Pine Lake and Walpack Center may be developed if determined feasible. Another possibility for overnight lodging is bed-and-breakfast facilities, which could be provided in historic structures.

Other Activities. Picnic facilities will be provided at most activity areas. Playfields will 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.

Use of gliders is recognized as a nonpolluting recreational use of the air space over the recreation area; however, the physical constraints of the landforms, the dispersed and unstructured nature of visitor use, and the unpredictability of emergency glider landings makes designation of a specific emergency landing area unpractical and hazardous from a management standpoint. The National Park Service recognizes that

emergencies will occasionally occur and feels that guidelines in the Code of Federal Regulations sufficiently address these situations (36 CFR 2.17(b) and (c)). The regulations require that a permit be obtained from the Park Service to remove downed aircraft and that reparations be paid for any damage.

Outdoor recreational activities that do not constitute traditional or customary park uses will 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 danger to public safety (including the safety of the participants). Hang-gliding is an example of a new activity that has been accommodated, and a field has been designated just for this use at Minsi. Requests to hold spectator events, such as raft races, will also be considered on a case-by-case basis.

#### Activities Provided by Others

Additional recreational uses will 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 will 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 may be provided at historic structures that are leased.

Concession operations in park areas are used to meet the needs of visitors, and they should not directly compete with commercial activities offered outside the park. Concession activities at Delaware Water Gap will be limited (for example, campgrounds, the proposed ferryboat operation at Ferry Landing/Dimmicks launch, and small food service operations at beaches will be concession operations). Additional operations may be established upon approval of the superintendent, if they are shown to be feasible (see also the "General Development" section).

#### MANAGEMENT OF VISITOR USE

Visitor use and related facility development will be balanced with resource protection. Significant scenic, natural, and historic features will be protected from misuse or overuse, yet numerous opportunities will 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. The use of 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.

Table 5: Visitor Uses Provided by Others  
Delaware Water Gap National Recreation Area

<u>Type</u>	<u>Location</u>	<u>Supplier</u>
Arts and Crafts Centers	Peters Valley Bushkill Millbrook	Peters Valley Craftsmen, Inc. Pennsylvania Guild of Craftsmen Millbrook Village Society
Camping - Developed	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
Environmental Education	Pocono Environmental Education Center Mohican Outdoor Resource Center Walpack Valley	Pocono Environmental Education Center Trenton State College Eatontown School District
Ferryboat Service	Copper Mine Inn	Concessioner
Food Service	Milford Beach Sandyston Beach Shanna House Copper Mine Inn Walpack Inn Smithfield Hidden Lake Watergate Long Pine Lake Millbrook Village	Concessioner Concessioner Concessioner Concessioner Private owner Concessioner Concessioner Concessioner Concessioner Concessioner Concessioner
General Sales	Bushkill (Turn General Store) Long Pine Lake Service station	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 Van Campen Inn	MARCH Walpack Historical Society
- 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.
Picnicking and Swimming	Long Pine Lake	Concessioner
Playfield	Dingmans campground	Concessioner
Tour 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

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 as to what constitutes overcrowding. Research indicates, however, only a minimal relationship between visitor satisfaction and the number of visitors at an area.

Under the plan visitor use will be managed to control environmental and social impacts. Based on the management objectives for the area, quantitative standards will 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. Standards for environmental quality and acceptable limits for adverse effects will be set by NPS scientists, while standards for the visitor experience will be set on the basis of expressed needs and wants of visitors. A systematic monitoring program will be established to determine when use is leading to unacceptable change. If limits for adverse effects are exceeded, the Park Service will take positive steps to redistribute use through public education and information. If necessary, activities will be relocated and facilities will be expanded, redeveloped, or as a last resort, closed to prevent additional adverse effects on land and water resources. In situations where visitor safety is affected, restrictions on numbers of users will be enforced.

Visitor use will not usually be limited, but it could be readjusted or redirected because of visitor crowding or the overuse of particular facilities. By providing a variety of visitor facilities and activity areas, it is hoped that instances of overcrowding will be minimized.

## ADMINISTRATION AND OPERATIONS

The goal for administration and operations at Delaware Water Gap National Recreation Area is to ensure that management activities are efficient and cost-effective in providing for the protection of natural and cultural resources, visitor needs, and the safety of visitors and employees alike. NPS managers will cooperate with their counterparts in other federal agencies, state and local governments, and private groups to make certain 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 will continue to participate in public forums, as well as informal and formal planning efforts to help coordinate future management plans for the region.

### ADMINISTRATION

The national recreation area is administered by a superintendent and assistant superintendent, and four divisions have been established for operations: resource protection and visitor management, visitor services and resource management, administration, and maintenance. All administrative activities will 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, will 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 will 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 Administration, which is responsible for lands, contracts, and personnel, will continue to operate out of the headquarters.

The Division of Maintenance will 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 will be divided into two districts, one for each state. In Pennsylvania the primary maintenance operation will continue at the Bushkill headquarters, with a satellite facility developed in the north at the Zimmerman farm. In New Jersey the maintenance operation will be centered at a new facility in the north at Sandyston, and the maintenance operation at Weygadt will serve as a satellite facility. This organization from east to west and north to south will take the best advantage of the existing I-80 and US 206 bridges, which are capable of carrying heavy road maintenance equipment.

The present NPS staff for the national recreation area consists of 69 full-time, 75.7 part-time, and 22 seasonal positions. To operate and maintain existing facilities and programs, an additional 18 full-time

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



## OPERATIONS

### Law Enforcement

The National Park Service has proprietary jurisdiction throughout most of the recreation area. The establishing 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. This is known as proprietary jurisdiction. Any criminal offense committed on other lands, including all roads within the national recreation area except US 209 and River Road in Pennsylvania, must be handled by appropriate local or state law enforcement officials.



The National Park Service is currently seeking the cession of concurrent jurisdiction for national park system lands on a statewide basis from Pennsylvania and New Jersey.. Concurrent jurisdiction for federal lands recognizes the federal government as the primary management and law enforcement agency; it allows state officers to assist federal officers in all aspects of management and law enforcement, or to act under state authority in the absence of federal regulation; and it allows federal agents to enforce state laws through the Assimilative Crimes Act (18 USC 13). The National Park Service and Pennsylvania already share concurrent jurisdiction on US 209 and River Road in Pennsylvania.

#### Appalachian National Scenic Trail

NPS staff will continue to manage that portion of the Appalachian National Scenic Trail that passes through the recreation area. Because scenic diversity is encouraged along national scenic trails, which is consistent with the objectives of this plan, vistas and scenic corridors will be identified and maintained along the trail route. The trail is primarily in the natural zone, and hiking is an appropriate use in this zone. The actions of this General Management Plan are consistent with the mandates of the National Trails System Act.

#### Cooperative Agreements

Cooperative agreements, memorandums of understanding, and special use permits have been negotiated between the National Park Service and various local groups and agencies to assist in the management and operations of the national recreation area. These various agreements and organizations are listed in table 6.

The NPS staff also monitors special uses of national recreation area lands that are not directly related to park purposes. These include uses by utility companies (such as Metropolitan Edison Company, New Jersey Bell, Bushkill Water Association, Montague Cable, and the borough of Portland water supply system), three U.S. post offices, the Montague Grange, the Pike County Chamber of Commerce (information booth), and several churches. Over 35 permits for such special uses are currently in effect, some predating the establishment of the national recreation area.

#### Employee Housing

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 so they can respond quickly to instances of property damage from fire, theft, or vandalism and also to visitor emergencies

Table 6: Agencies, Business Groups, and Individuals Assisting in the Operation of Delaware Water Gap National Recreation Area

<u>Name</u>	<u>Form and Date of Agreement</u>	<u>Purpose</u>
Blairstown 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
Individual farmers	Special use permits. (variable)	Agricultural activities
Marshalls 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, ongoing)	Living history interpretation
Montague Association for the Restoration of Community History (MARCH)	Special use permit. (1980-2000)	Interpretation of Neldon-Roberts schoolhouse
Montague Volunteer Fire Company	Cooperative agreement (1978-1983)	Cooperative fire control
Mount Bethel Volunteer Fire Company	Cooperative agreement (1983-1987)	Cooperative fire control
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
New York/New Jersey Trail Conference	Memorandum of understanding (pending)	Cooperative management of the Appalachian Trail
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 Environmental Education Center	Memorandum of understanding (1987-1991)	Operation of environmental education center
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
RAMAC Flying Club	Special use permit (1986-1991)	Model airplane flying
Sandyston Township	Special use permit (1984-1989)	Township ballfields
Sandyston Township Fire Company	Cooperative agreement (1984-1989)	Cooperative fire control
Schoonover Community House Association	Special use permit (1984-1988)	Community services and library
Springfield Trail Club	Memorandum of understanding (pending)	Cooperative management of the Appalachian Trail
Stillwater Area Volunteer Fire Company	Cooperative agreement (1984-1988)	Cooperative fire control
Trenton State College	Special use permit (1985-1989)	Environmental education programs
Walpack Historical Society	Cooperative agreement (pending)	Interpretation
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

requiring search-and-rescue or 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 housing will be dispersed throughout the area at strategic locations so that the maximum response times in emergency situations will be 10 to 15 minutes to any area. In some cases housing employees in historic structures is the only way to provide protection for these structures.

In addition to required residences for protection purposes, low-cost housing is needed 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 housing will be provided at 28 sites within the area. Ten residences will be in historic structures, and two new residences will be required. Eight existing residences will no longer be needed. A housing management plan will be prepared to describe requirements in detail.

#### RELATIONSHIPS WITH LOCAL GOVERNMENTS

Increased visitation to the national recreation area may cause greater burdens on local governments if they are called upon to provide emergency and other services. Cooperative agreements with local fire departments will be extended (see table 6); these agreements stipulate full reimbursement for local departments' costs for responding to fires in the recreation area. Local ambulance and rescue services are encouraged to recover costs directly from the user's health insurance. Many recreation area staff will continue to be trained in law enforcement and emergency medical procedures to assist local authorities, if needed. Extending concurrent jurisdiction to the whole national recreation area will also help alleviate law enforcement burdens on local governments.

The federal government compensates local governments through payments-in-lieu of taxes for the loss of revenues for any private lands removed from local tax rolls as a result of federal acquisition. Such payments may be used by the local government for any of its functions, including emergency services.

Road system problems and traffic congestion related to greater visitation to the region will be addressed jointly by the National Park Service and local governments.

## GENERAL DEVELOPMENT

Delaware Water Gap National Recreation Area is currently not highly developed. Existing facilities (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 in Bushkill, plus several comfort stations throughout the recreation area, are the only buildings designed and constructed by the National Park Service to date. The locations of facilities are listed in table 7.

The goal of this plan will be to ensure that development serves the needs of visitors efficiently and in a manner that complements the natural, cultural, and scenic attributes of the region. Facilities for NPS operations will be developed to ensure cost-effective and efficient operations over the life of this plan.

As previously mentioned, the Delaware River Basin Commission will reassess the need for the Tocks Island reservoir after the year 2000, based on the water supply in the basin and future demands. Facilities and their development costs that would be affected if the reservoir was built are listed in appendix G. These facilities are essential for water-related recreation under the present plan, and their costs can be fully amortized before the construction of a dam, if one is built.

Any development within the riverbed 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.

Overall, 85 percent of the sites where development actions will be undertaken are currently used for recreational activities, and the purpose of most of the actions will be to improve facilities at these existing areas. The General Development map shows the locations of existing and new developed areas and the type of facilities. The other 15 percent of the sites are new areas where facilities will be developed. Cost estimates and a development phasing schedule are included in appendix H.

## VISITOR FACILITIES

### Facilities Provided by the National Park Service

The National Park Service traditionally provides most facilities for visitor use, administration, and maintenance in national park system areas. Private concessioners often provide food service facilities, developed campgrounds, and specialized recreation facilities such as golf courses. At Delaware Water Gap new facilities will be dispersed throughout the recreation area to minimize impacts and to enhance the diversity of visitor experiences. New facilities will include developed river accesses, swim beaches, picnic grounds and playfields, campgrounds, interpretive and information centers, and an extensive road and trail system.

# GENERAL DEVELOPMENT

## NEW DEVELOPMENT

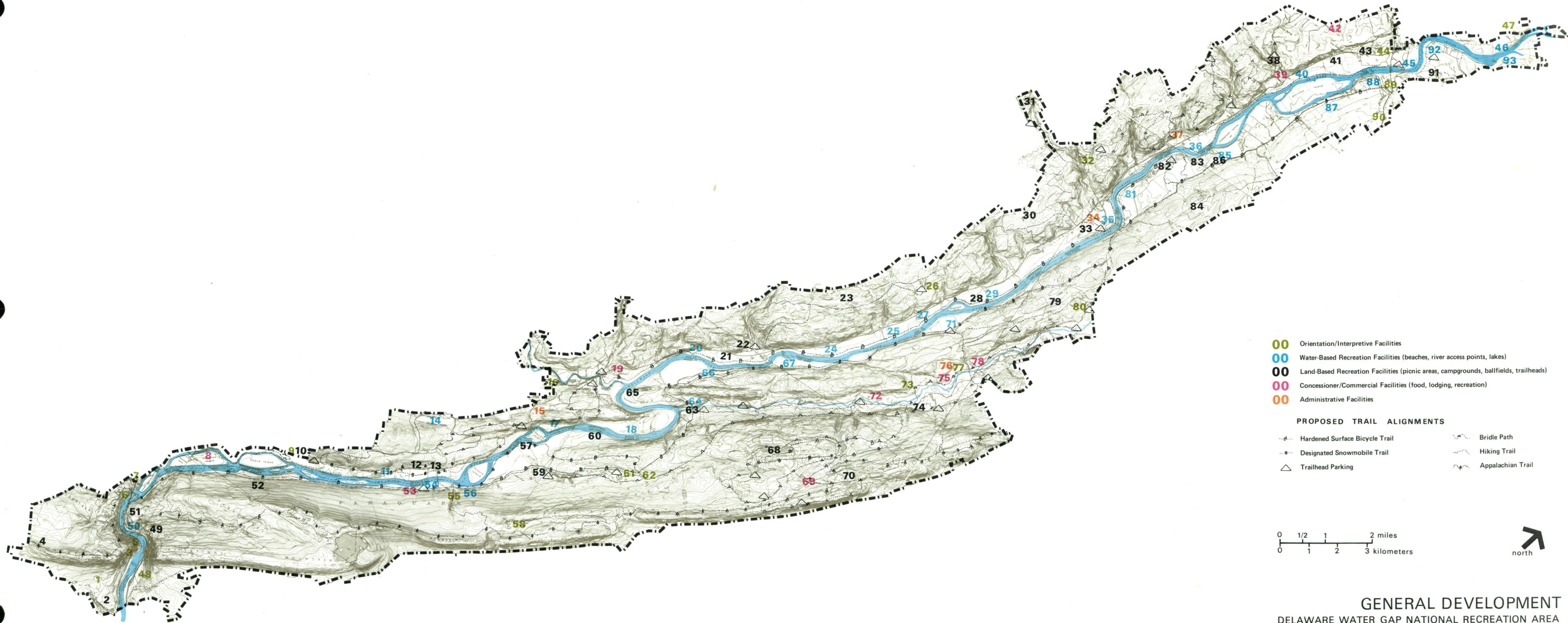
### PENNSYLVANIA

- 1 **SLATEFORD 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  
Construct 25 picnic sites  
Upgrade water system
- 2 **DUCK POND**  
Maintain 10-car/1-bus parking area
- 3 **ARROW ISLAND**  
Maintain scenic overlook and 20-car parking area  
Continue commercial tour bus stop
- 4 **MINSI HANG-GLIDING LAUNCH SITE**  
Maintain 5-car parking area and open field
- 5 **POINT 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  
Construct fishing boat/canoe launch
- 6 **RESORT POINT**  
Maintain scenic overlook and 21-car parking area  
Continue commercial tour bus stop
- 7 **PENNSYLVANIA WELCOME CENTER**  
Continue state-operated visitor information center
- 8 **SHAWNEE**  
Continue privately operated resort, golf course, swim beach, and canoe and tube launch/takeout
- 9 **HIALEAH NRA ENTRANCE (River Road)**  
Construct 5-car pullout; provide visitor information
- 10 **HIALEAH PICNIC AREA**  
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  
Upgrade access and circulation roads
- 11 **SMITHFIELD**  
Retain swim beach, open playfield, 325-car/5-bus parking area, and beachhouse with 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 fishing boat/canoe launch and close existing launch  
Replace portable toilets with 4 toilet facilities  
Upgrade access and circulation
- 12 **HIALEAH AIRPARK**  
Maintain open playfield and 10-car parking area
- 13 **FERRY LANDING**  
Construct 10-site picnic area, 25-car parking area, ferryboat landing, and 1 toilet facility (concession)  
Upgrade access and circulation
- 14 **HIDDEN LAKE**  
Maintain open playfield, 80-car/2-bus parking area, swim beach, employee house, and 10 picnic sites; construct 6 toilet facilities and storage area; provide concession food service  
Expand group campsite to 2 sites (40 persons/site); provide 4 toilet facilities  
Rehabilitate lodge and barn; install utilities  
Upgrade canoe put-in
- 15 **NRA HEADQUARTERS**  
Make lower floor handicap accessible;  
Continue use of Pennsylvania maintenance facility  
Maintain 30-car parking area
- 16 **SAND HILL NRA ENTRANCE (US 209 South)**  
Construct visitor contact station (with 3 toilet facilities) and 40-car parking area
- 17 **MILLER-HAGEN**  
Construct canoe put-in, 25-car parking area, 10 picnic sites, picnic shelter, playfield, and 2 toilet facilities
- 18 **COLD SPRING**  
Construct canoe put-in and 5-car parking area
- 19 **BUSHKILL**  
Preserve historic structures  
Continue privately operated commercial activities  
Continue use of Bushkill schoolhouse as river district ranger/naturalist station
- 20 **BUSHKILL ACCESS**  
Relocate fishing boat/canoe launch  
Relocate 15-car parking area and expand to 30 cars/boat trailers  
Upgrade entrance road  
Construct 2 toilet facilities
- 21 **VALLEY VIEW**  
Upgrade and expand 5 canoe campsites (8 persons/site) to 20 sites and 2 canoe group campsites (25 persons/site)  
Construct 7 toilet facilities
- 22 **TOMS CREEK PICNIC AREA**  
Maintain 7 picnic sites and expand 10-car parking area to 35-car trailhead parking
- 23 **STUCKI POND**  
Construct 15 picnic sites, 20-car parking area, and 1 toilet facility
- 24 **ESHBACK**  
Construct picnic shelter, 50 picnic sites, and open playfield; expand 15-car parking area to 75 cars  
Improve canoe put-in  
Replace 2 portable toilets with 4 toilet facilities  
Upgrade entrance road
- 25 **POCONO ACCESS**  
Upgrade canoe put-in to fishing boat/canoe launch  
Construct 15-car/boat trailer parking area  
Install 1 toilet facility
- 26 **POCONO 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
- 27 **SHAPNACK ACCESS**  
Maintain canoe put-in and 1 Clivus Multrum toilet facility  
Construct 10-car parking area
- 28 **HORNBECK**  
Upgrade and expand 20 canoe campsites to 25 sites (4 persons/site)  
Replace Clivus Multrum toilet with 4 toilet facilities
- 29 **HORNBECK CREEK ACCESS**  
Construct 1 canoe put-in and 10-car parking area
- 30 **LOCH LOMOND**  
Maintain 10 picnic sites and 20-car parking area for trailhead  
Replace portable toilet with 1 toilet facility
- 31 **CHILDS PICNIC AREA**  
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  
Rehabilitate 2 picnic shelters and hiking trails
- 32 **DINGMANS FALLS**  
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

- 33 **DINGMANS CAMPGROUND**  
Continue concessioner-operated campground (no seasonal campsites)  
Upgrade 108 campsites, 2 bathhouses, 2 comfort stations (10 toilet facilities), trailer dump station, open playfield, and fishing boat/canoe launch  
Construct picnic pavilion
- 34 **PENNSYLVANIA 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)
- 35 **DINGMANS LAUNCH**  
Construct 3 fishing boat/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  
Retain 10 picnic sites  
Provide visitor information
- 36 **DRY BROOK**  
Construct canoe put-in, 15-car parking area, and 1 toilet facility
- 37 **ZIMMERMAN FARM**  
Develop Pennsylvania satellite maintenance facility
- 38 **RAYMONDSKILL FALLS**  
Retain 20-car parking area for trailhead use, 1 comfort station, and 3 picnic sites  
Upgrade hiking trails
- 39 **SHANNA HOUSE**  
Rehabilitate leased/concession-operated restaurant  
Upgrade and expand 10-car parking area to 50 cars  
Upgrade utilities
- 40 **INDIAN POINT**  
Construct canoe put-in and 10-car parking area
- 41 **TOCKS AIRPARK**  
Maintain open playfield; improve 20-car parking area
- 42 **CLIFFPARK**  
Continue privately operated golf course
- 43 **FECHTER POND**  
Construct entrance road, open playfield, 20 picnic sites, 30-car parking area, and 2 toilet facilities
- 44 **LAPAWANSA NRA ENTRANCE (US 209 North)**  
Construct visitor contact station (with 3 toilet facilities) and 40-car parking area
- 45 **MILFORD BEACH**  
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 2 fishing boat/canoe launches  
Replace comfort station with 10 toilet facilities; construct beachhouse with 10 toilet facilities; and remove 4 portable toilets  
Relocate entrance road
- 46 **ROBERTS LANE**  
Construct canoe put-in and 5-car parking area
- 47 **PEIRCE HOUSE**  
Develop interpretive/education/research center  
Upgrade 2-car parking area to 8 cars  
Maintain quarters for 1 employee  
Upgrade water and septic systems

### NEW JERSEY

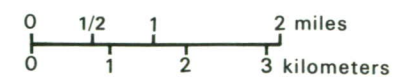
- 48 **WEYGADT**  
Construct visitor contact station (with 12 toilet facilities) and 125-car/10-bus parking area  
Provide 25 picnic sites  
Upgrade utilities  
Redevelop New Jersey satellite maintenance area  
Replace and expand ranger station; replace employee house
- 49 **NEW JERSEY REST AREA**  
Continue state-operated truck pullout
- 50 **KITTATINNY POINT**  
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; remove 2 portable toilets  
Upgrade 2 fishing boat/canoe launches; construct 75-car/boat trailer parking area and access road
- 51 **DUNFIELD CREEK**  
Maintain trailhead parking for 50 cars/2 buses  
Construct 6 toilet facilities
- 52 **WORTHINGTON STATE FOREST**  
Continue use of 80 campsites, amphitheater, and fishing boat/canoe launch (state operated)
- 53 **COPPER MINE INN**  
Rehabilitate leased/concession-operated restaurant  
Construct canoe put-in and 2 toilet facilities  
Upgrade 50-car/boat trailer parking area, entrance road, and utilities
- 54 **DIMMICKS LAUNCH**  
Upgrade access and construct canoe put-in, ferryboat landing, and 25-car parking area (concession)
- 55 **PAHAQUARRY COPPER MINES**  
Upgrade and expand 12-car parking area to 25 cars; maintain 3-bus parking area  
Install 3 toilet facilities
- 56 **POXONO**  
Maintain fishing boat/canoe launch and 6-car/boat trailer parking area  
Replace portable toilets with 1 toilet facility
- 57 **DEPEW RECREATION SITE**  
Maintain open playfield and fishing boat/canoe launch  
Construct 6 toilet facilities 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
- 58 **MOHICAN OUTDOOR RESOURCE CENTER**  
Continue privately operated camp, lodging, 45-car/2-bus parking area, and comfort station  
Upgrade access road
- 59 **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  
Upper Area: Relocate 12-car parking area; rehabilitate entrance road
- 60 **HAMILTON**  
Upgrade and expand 14 canoe campsites (6 persons/site) to 30 sites  
Install 4 additional toilet facilities — 6 total
- 61 **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  
Provide concession food service
- 62 **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  
Relocate employee quarters to Van Campen house
- 63 **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  
Construct amphitheater  
Upgrade access road
- 64 **STEVENS POINT**  
Construct canoe put-in and 5-car parking area
- 65 **PETERS**  
Upgrade and expand 18 canoe campsites (6 persons/site) to 35 sites  
Install 6 additional toilet facilities — 7 total
- 66 **SMITH FERRY**  
Construct canoe put-in and 5-car parking area
- 67 **BUCK**  
Construct fishing boat/canoe launch, 10-car/boat trailer parking area, and 1 toilet facility
- 68 **BLUE MOUNTAIN LAKES**  
Construct 20 picnic sites, 30-car parking area, and 2 toilet facilities,
- 69 **LONG PINE LAKE**  
Develop concession-operated overnight lodging and 250 campsites, with food service, 100 picnic sites, swim beach, and 300-car/3-bus parking area  
Rehabilitate structures and upgrade utilities
- 70 **CRATER LAKE**  
Replace 10-car parking area with trailhead parking
- 71 **FORT JOHN**  
Upgrade canoe put-in to fishing boat/canoe launch  
Upgrade and expand 5-car parking area to 20 cars/boat trailers  
Construct 1 toilet facility
- 72 **SHADOW FARM**  
Develop privately operated equestrian center
- 73 **FLATBROOK VALLEY OVERLOOK**  
Construct 10-car parking area
- 74 **BUTTERMILK FALLS**  
Upgrade and expand 15-car parking area to 25 cars  
Provide 5 picnic sites and 1 toilet facility  
Upgrade access road
- 75 **WALPACK INN**  
Continue privately operated restaurant
- 76 **NEW JERSEY DISTRICT OFFICE**  
Remodel interior of Jacob Roe house  
Establish visitor contact point  
Upgrade parking
- 77 **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
- 78 **WALPACK CENTER**  
Maintain village for privately operated lodging/commercial use  
Retain 1 employee house and post office
- 79 **THUNDER MOUNTAIN**  
Remove 6 structures  
Provide 50 picnic sites, 75-car parking area, open playfield, and 6 toilet facilities  
Upgrade access road
- 80 **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  
Construct central water and sewer systems and storage  
Improve and expand pedestrian access system
- 81 **SANDYSTON BEACH**  
Construct swim beach, beachhouse with 6 toilet facilities, comfort station with 4 toilet facilities, 200-car/3-bus parking area, 100 picnic sites, open playfield, and canoe put-in; install utilities  
Develop New Jersey maintenance facility and 1 employee house
- 82 **KETTLE HOLES CAMPGROUND**  
Develop concession-operated campground (100 campsites) and 6 toilet facilities
- 83 **SANDYSTON CANOE CAMPSITES**  
Expand 8 canoe campsites (4 persons/site) to 10 canoe campsites  
Install 1 additional toilet facility — 2 total
- 84 **SUSSEX POND**  
Continue privately operated playfield and portable toilet
- 85 **NAMANOCK**  
Construct fishing boat/canoe launch, 15-car/boat trailer parking area, and 1 toilet facility
- 86 **OLD MINE ROAD YOUTH HOSTEL**  
Maintain youth hostel  
Upgrade entrance road
- 87 **MINISINK**  
Construct canoe put-in and 5-car parking area
- 88 **WHITE BROOK**  
Construct canoe put-in and 5-car parking area  
Upgrade entrance road
- 89 **US 206 NRA ENTRANCE**  
Construct visitor contact/information kiosk
- 90 **NELDON-ROBERTS SCHOOLHOUSE**  
Maintain visitor contact station (by others)  
Upgrade and expand parking area to 20 cars
- 91 **MILLVILLE**  
Construct 25 picnic sites, open playfield, 40-car parking area, and 3 toilet facilities
- 92 **MILLVILLE ACCESS**  
Construct fishing boat/canoe launch, 10-car parking area, and 1 toilet facility
- 93 **QUICKS ISLAND ACCESS**  
Construct canoe put-in and 5-car parking area



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

**PROPOSED TRAIL ALIGNMENTS**

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



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

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

Motorboat ramps will consist of a concrete ramp, parking for cars and boat trailers, comfort facilities, picnicking areas, and information facilities. The existing ramp at the Smithfield pool will be upgraded.

Fishing boat/canoe launches will be less highly developed and will be for use primarily by smaller craft; they will consist of a stabilized concrete ladder, car and trailer parking, comfort facilities, and information signs. Existing launches will be upgraded or maintained, and additional launches will be constructed.

Canoe put-ins will be relatively undeveloped, and boaters will have to carry their craft to the water. Parking areas will be designated, and information signs provided. Existing put-ins will be improved, and additional put-ins will be constructed.

Day Recreation Sites. Most day recreation sites will have facilities for multiple uses. Ten sites will be developed for extensive public use, with facilities for picnicking, boat launching, and playing. Existing facilities (for example, at Smithfield, Hidden Lake, Depew, Childs, and Milford) will be improved. Development at sites such as Sandyston Beach, Eshback, Millville, and Thunder Mountain will either be entirely new or expanded. Three swim beaches will be provided.

Seventeen sites will have less extensive public recreation facilities. Most of these sites (for example, Toms Creek, 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 will be continued in much the same style, with a moderate expansion of facilities. New visitor use areas will be developed at Fechter Pond, Miller-Hagen, Stucki Pond, and other sites.

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

Campsites. As described in the "Visitor Use" section, additional campsites will be provided, but the natural character of the surrounding area will be maintained. Most of the new sites will be at developed campgrounds; no designated backcountry campsites will be provided. Each developed campsite will have a parking space, picnic table, barbeque pit, and trash receptacle. Some sites will be equipped with electrical, water, and sewage connections; each campground will have restrooms and shower facilities. All developed campgrounds will be operated by private concessioners, and fees will be commensurate with those charged at nearby private campgrounds.

The Park Service will provide designated camping areas for canoeists at four locations, and water and comfort facilities will be provided. Canoeists will also be able to use numerous islands for primitive camping. No facilities will be provided on the islands, and campers will have to furnish their own water and carry out any solid waste.

Organized group campsites will be available on a reservation basis at Hidden Lake and Rivers Bend and for canoeists at Valley View.

Trails. A multiple use trail network will be developed throughout the recreation area. Connecting and through-trails for day hiking will help reduce crowding on the Appalachian Trail. A riverside trail for hiking, bicycling, and cross-country skiing on the Pennsylvania side will be developed to complement existing trails. This trail will 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, and Dingmans Falls. West of the riverside trail and parallel to the escarpment of the Pocono Plateau will be a countryside trail, connecting primarily upland areas of interest such as Egypt Mills, Stucki Pond, and the Pocono Environmental Education Center.

Some bridle trails will be developed separate from hiking trails. One set of bridle trail loops will be to the north of the countryside trail in Pennsylvania, and one set will be to the south. The northern loops will explore areas on the Pocono Plateau and its escarpment, while the southern loop will tour gentler hills and areas that are geologically older. The trails will be of varying lengths and will offer opportunities for all skill levels of users.

Trails on the New Jersey side of the river will also lead to various points of interest, including Pahaquarry Copper Mines, Watergate, and Millbrook, and they will serve both hikers and bicyclers. The Old Mine Road is included as one link of the East Coast Bicycle Trail and is also listed as a bike trail by New Jersey. Bridle trails as well as hiking and nature trails will traverse the Flatbrook Valley and Kittatinny uplands around Long Pine and Blue Mountain lakes. Hiking trails will also be developed to trace routes through the historic areas around Peters Valley, Van Campen Inn, and Fort John.

Any marked trails may be used as cross-country ski trails, and parking areas will be plowed to indicate which trails are recommended. Snowmobiling is allowed on any seasonally closed automobile roads, as well as on the existing snowmobile trail in Pennsylvania.

As with any planned development, site-specific design and construction constraints will be taken into account when the trails are laid out. Environmental factors such as topography, wetlands, or endangered species will be considered, and the trails will be designed to provide for visitor enjoyment of the area's resources while ensuring the protection and preservation of those resources.

Volunteer individuals, groups, and organizations will be sought to develop and maintain the trails. Interested clubs or groups may designate whole trails or sections of trails that they will sponsor and for which they will assume maintenance responsibility.

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

#### Concessioner Operations

Concessioner operations will help meet projected visitor demands at Delaware Water Gap, and the operations described in this plan are in keeping with providing for diversified recreational opportunities. As previously stated, none of the operations should directly compete with commercial activities offered outside the recreation area, and economic feasibility studies and detailed market analyses will be done before any individual concession contracts are issued.

Long Pine Lake and Shadow farm are both proposed as commercial concession operations. However, if the feasibility studies and market analyses show that commercial operations at these sites would not be economically viable, then the proposed uses will be reevaluated. If a concession operation is not feasible at Long Pine Lake, then plans for the area may be scaled down to allow for day recreation or other uses, or existing development may be removed. If a commercial equestrian center is not feasible at Shadow farm, and if no administrative or other uses can be found for the existing structures, then the buildings will be removed.

Walpack Center, Shanna House, and the Copper Mine Inn, as well as other historic structures/districts, may be locations for commercial activities, but in most cases adaptive uses will be managed under the requirements of the historic property leasing program rather than as concession operations. Activities that can only operate under a concession agreement at these locations will be acceptable as long as the historical qualities are protected.

Concessions are private enterprises, and operators are guaranteed by law to make a profit. However, because concessioners have exclusive rights

Table 7: Summary of Visitor Facilities  
 Delaware Water Gap National Recreation Area  
 (Existing/Proposed)

NPS Development	Campsites		Parking Spaces		Picnic Tables	Play-field	River Access*			Swim Beach	Toilet Facilities**	Visitor Information	
	Canoe	Group	Car	Bus			Canoe Put-in	Launch	Ramp			Point	Station
Pennsylvania													
Slateford Farm			12/40	0/4	0/25						2/5		
Duck Pond			10/10	1/1									
Arrow Island			20/20										
Minsi Launch Site			5/5	5/5				1/0	0/1		1/4		
Point of Gap			21/21										1/1
Resort Point			0/5										
Hialeah NRA Entrance			45/50	1/1	33/45						2/4		
Hialeah Picnic Area			200/325	5/5	15/50	1/1	1/1	1/1	1/1	1***/1***	6/8		
Smithfield			10/10			1/1							
Hialeah Airpark		1/2	80/80	2/2	6/10	1/1	1/1	1/1		1/1	4/10		
Hidden Lake			30/30										
NRA Headquarters			0/40								0/3		0/1
Sand Hill Entrance			0/25		0/10	0/1	0/1	0/1			0/2		
Miller-Hagen			0/5					0/1					
Cold Springs			0/5					0/1			0/2		
Bushkill Access			15/30					1/1			0/7		
Valley View	5/20	0/2											
Toms Creek			10/35		7/7								
Stucki Pond			0/20		0/15						0/1		
Eshback			15/75		0/50	0/1	1/1	1/1			2/4		
Pocono Access			0/15				1/0	0/1			0/1		
Shapnack Access			0/10				1/1				1/1		
Hornbeck	20/25										3/4		
Hornbeck Creek													
Access			0/10					0/1					
Loch Lomond			5/20		10/10						1/1		
Childs Picnic Area			150/100	0/2	130/100						3/10		
Dingmans Falls			60/60	3/3	6/6						6/6		1/1
Dingmans Launch			110/150		10/10		1/1	1/3			4/10		0/1
Dry Brook			0/75				0/1				0/1		
Raymondskill Falls			20/20		3/3						1/1		
Indian Point			0/10					0/1					
Tocks Airpark			20/20			1/1							
Fechter Pond			0/30		0/20	0/1					0/2		0/1
Lapawansa Entrance			0/40								0/3		
Milford Beach			100/500	6/10	20/200	1/1	0/2	2/0	1***/1***	6/20			
Roberts Lane			0/5				0/1						
Peirce House			2/8										

	Campsites			River Access*			Visitor Information							
	Canoe	Devel- oped	Group	Canoe Put-in	Launch	Ramp	Swim Beach	Toilet Facilities**	Point	Station				
New Jersey														
Weygadt	0/125	0/10	0/25					0/12		0/1				
Kittatinny Point	100/175	5/5	20/50		0/2	2/0		6/14		1/0				
Dunfield Creek	50/50	2/2						0/6						
Pahaquarry Copper Mines	12/25	3/3						0/3						
Pocono	6/6				1/1			2/1						
Depew Recreation Site	20/75	0/2	12/50	1/1	1/1			2/6						
Van Campens Glen														
Lower	10/25		6/15					1/3						
Upper	12/12													
Hamilton	14/30							2/6						
Watagate	30/100	3/3	12/50	1/1				4/10						
Millbrook Village	25/100	2/2	6/6					2/8		1/1				
Rivers Bend	10/70	10/10		1/1				10/10						
Stevens Point	0/5			0/1										
Peters								1/7						
Smith Ferry	0/5			0/1										
Buck	0/70				0/1			0/1						
Blue Mountain Lakes	0/30		0/20					0/2						
Crater Lake	10/10													
Fort John	5/20			1/0	0/1			0/1						
Flatbrook Valley														
Overlook	0/10													
Buttermilk Falls	15/25		0/5					0/1						
Thunder Mountain	0/75		0/50	0/1				0/6						
Peters Valley	40/85	2/2	6/6					4/6		1/1				
Sandyston Beach	0/200	0/3	0/100	0/1				0/10						
Sandyston Canoe Campsites	8/10							1/2						
Namanock	0/15				0/1			0/1						
Minisink	0/5			0/1										
White Brook	0/5			0/1						0/1				
US 206 Entrance														
Neldon-Roberts														
Schoolhouse	6/20													
Millville	0/40		0/25	0/1				0/3						
Millville Access	0/10							0/1						
Quicks Island Access	0/5			0/1										
Subtotal	65/120	0/0	6/9	1,366/3,192	50/75	302/963	8/14	8/17	5/17	5/1	3/4	77/230	2/4	3/5

	Campsites		Parking Spaces		Picnic Tables	Play-field	River Access*			Visitor Information				
	Canoe oped	Group	Car	Bus			Canoe Put-in	Launch	Ramp	Swim Beach	Toilet Facilities**	Point	Station	
<u>Private Development</u>														
Pennsylvania														
Ferry Landing			0/25		0/10							0/1		
Dingmans Campground	108/108		108/108		108/108	1/1		1/1				10/10		
Shanna House			10/50											
<u>New Jersey</u>														
Copper Mine Inn			50/50					0/1				0/2		
Dimmicks Launch			0/25					0/1						
Long Pine Lake	0/250		0/300	0/3	0/100				0/1					
Walpack Inn			50/50									0/6		
Kettle Holes Campground	0/100		0/100			1/1						1/1		
Sussex Pond														
Subtotal	0/0	108/458	0/0	218/708	0/3	108/218	2/2	0/2	1/1	0/0	0/0	11/20	0/0	
<u>State Facilities</u>														
Worthington State Forest (New Jersey)														
	80/80								1/1					
GRAND TOTAL	65/120	108/538	6/9	1,584/3,900	50/78	410/1,171	10/16	8/19	7/19	5/1	3/5	88/250	2/4	3/5

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

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

\*\*\*Beachhouse will be provided.

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 costs of comparable products and services sold outside the recreation area.

### ACCESS AND CIRCULATION

Private automobiles will continue to be the primary means for visitor access to the national recreation area and circulation within it. Commercial bus and train transportation will continue to be a negligible means of access, although charter bus service between metropolitan areas and the national recreation area could be established, and any such efforts will be encouraged by the National Park Service.

Vehicle circulation within the national recreation area boundary is by means of a network of federal, state, county, township, borough, and private roads. Many of these roads serve a variety of functions, including visitor use, access to private development, and local commuter traffic. This plan considers the entire road network as an integrated system, regardless of ownership. The purpose and function of each road has been determined, along with how that road relates to the park purpose and visitor needs under the plan (see Roads map). The National Park Service will continue to maintain and administer roads under federal jurisdiction and any roads relinquished in the future to the federal government by state and local authorities.

Key entrance points into the recreation area from major regional access roads will be identified with signs and in orientation information. This will help divert use from local roads, which are not always designed to handle high traffic volumes, and will help reduce traffic congestion in adjacent towns. The National Park Service will work with the New Jersey and Pennsylvania Departments of Transportation and local governments to define the appropriate routes into the recreation area from major highways. Key entrance points in New Jersey will be near the intersection of River Road and I-80, off US 206 near Layton and Dingmans Ferry, and near the US 206 bridge in Montague. In Pennsylvania entrances will be at River Road near Shawnee, on US 209 south of Bushkill, and on US 209 south of Milford.

Within the recreation area access will be provided to all facilities and resources, with a minimum mileage of roads. Primary links across the Delaware River will continue to be I-80 in the south, Dingmans Ferry Bridge in the middle, and US 206 in the north. In New Jersey primary routes for north-south circulation will be 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 will continue to provide access to various facilities and features. In Pennsylvania primary routes for north-south circulation will continue to be US 209, River Road, and in places the Old Milford Road (PA 51001); primary east-west links will be the Buck and Doe Road, Briscoe Mountain Road, PA 611, PA 739, Silver Lake Road, and Raymondskill Road.

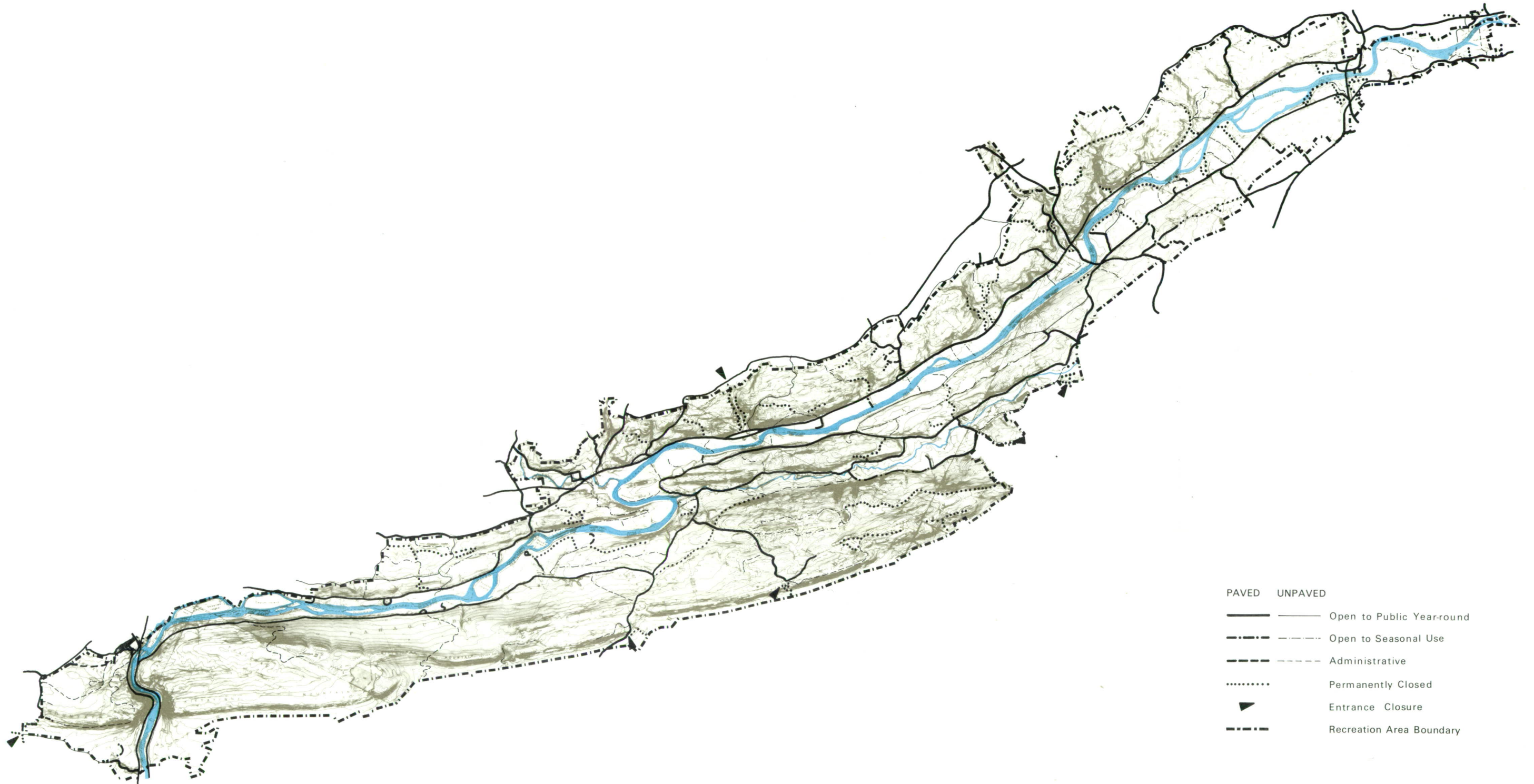
Seasonal road uses, such as for hunting and fishing access, bicycling, and cross-country skiing, will be allowed to the greatest extent possible. Snowmobiling is allowed on any road that is not plowed. Designated parking spaces along the roads will be developed to accommodate dispersed use patterns.

The Roads map shows paved and unpaved roads that will stay open year-round, roads open for seasonal use (that is, they will not be plowed during winter), and roads reserved only for administrative use. Several roads will be closed permanently to automobile use, either by gating them and allowing them to revegetate, scarifying and replanting them, or converting them to trails for horseback riding, cross-country skiing, or hiking.

Slightly over 250 miles of road will be open for public use, and approximately 215 miles will 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 will not be open during winter. Approximately 50 miles of road will be used only for administrative purposes (25 miles in Pennsylvania and over 20 miles in New Jersey). Approximately 60 miles of road will be permanently closed (40 miles in Pennsylvania and 22 miles in New Jersey). Of the more than 30 access points to the national recreation area, seven will be closed (three in Pennsylvania and four in New Jersey).

Abandoned roads acquired by the National Park Service will be used or closed based on visitor and management needs (see Roads map). However, a local government may obtain a right-of-way permit to use an NPS-managed road that is to be closed if its continued local use will not conflict with other recreation area uses and if the local government agrees to provide for maintenance, administration, and liability.





- | 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**  
 DELAWARE WATER GAP NATIONAL RECREATION AREA  
 UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE  
 620 | 20038B  
 DSC | FEB 87

**ON MICROFILM**

REPRODUCTION NO

**THE DELAWARE VALLEY ENVIRONMENT**



## REGIONAL SETTING

The Delaware Valley 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 the number of second homes and resort developments has increased dramatically as a result of this popularity.

## LOCATION AND ACCESS

Nearly 30 million people live within a 100-mile radius (or a 2½-hour drive) of Delaware Water Gap 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 is limited. Bus service consists of regular runs between New York City and nearby communities; however, no service is available between these communities and the national recreation area. The only passenger train service 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 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 (both permanent and seasonal residents), subdivision development, and recreation facilities. These trends are affecting varying amounts of undeveloped land in each of the seven counties.

## 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 privately owned cottages and condominiums have taken their place. 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 the setting is more rural, and 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. 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 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. A deficit of 1,566 campsites by 1990 was projected for Sussex County in the 1984 New Jersey Statewide Comprehensive Outdoor Recreation Plan; no deficit is projected for Warren County because it contains many private campgrounds.

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 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 activities.

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

### NATURAL RESOURCES

The entire recreation area has been affected by man's presence, even though streams, meadows, and woodlands 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 valleys, and the forested ridges afford a pleasant environment for recreational activities.

The shorelines of the upper 29 miles of the river (north of Shawnee Island) are largely primitive--agriculture and silviculture are compatible with the natural appearance of the river, and recreation developments are generally screened from the river. This segment of the river has been designated as scenic. Developments along the lowermost 6 miles of the river are generally scattered residences, and this portion is classified as recreational. The scenic segment 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. (River classification criteria are described in appendix B.)

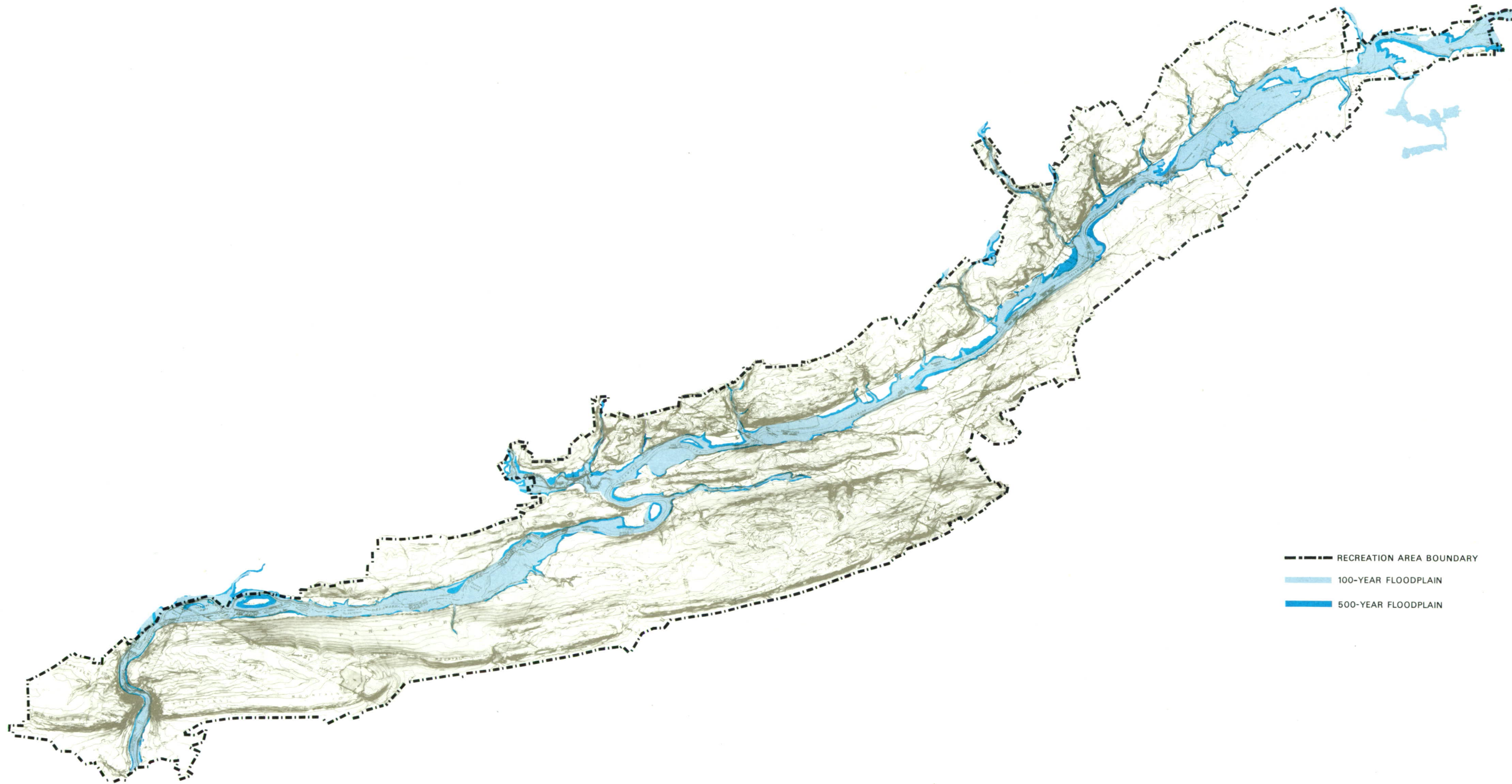
### Topographic Features

There are two distinct landforms in the Delaware Valley: the Valley and Ridge physiographic province, which includes the river lowlands 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 shale formation, which is dissected by streams flowing from the Pocono Plateau. Waterfalls are frequent features of these tributary streams. At the time when glacial ice melted, these streams tumbled over the edge of the plateau, but now they have cut their way back into that plateau and have formed 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





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

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



ALFONSO NO

glaciofluvial deposits that comprise an outwash terrace. Kames and kame terraces occur intermittently at the base of the valley walls, and they 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.

### 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, and the groundwater is high. These qualities result in severe limitations for on-site sewage disposal. Septic tanks and leachfields are not feasible in many areas, and where they are feasible, installation costs are high.

### Floodplains

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 in this stretch of river are 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 was determined from flood profiles of areas on the river directly above and below the national recreation area. Areas prone to flash floods have been identified, and evacuation plans have been prepared.

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.

### Water Resources

Streamflow. Dams in the upper watershed, above the national recreation area's boundary, regulate streamflow within Delaware Water Gap. The average annual flow 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 has controlled flows; however, during periods of high water, the islands are closed to visitor use.

Water Quality. 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 recreational activities.

Groundwater. 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.

### 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. Within the recreation area, the full spectrum of wetlands, from open water to forested marshes, may be found. Numerous beaver impoundments provide waterfowl habitat.

### Vegetation

The national recreation area lies within the Appalachian oak/hickory forest section of the eastern deciduous forest zone (Kuchler 1964), and vegetation 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; understory plants are herbaceous and include 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.

Farming used to take place on several islands, and this may account for the extensive stands of exotic species, such as Japanese knotweed and reed canary grass, in many areas.

Slopes and uplands 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. Species on north and south slopes are often strikingly different. 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.

### 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. 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 river is the major recreational attraction, and sportfishing is a popular activity. 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 the Delaware Valley. 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.

Approximately 40 species of mammals have been recorded in recent years, ranging from white-tailed deer and black bears to common small species. Under the establishing legislation, hunting is permitted in the recreation area. 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 into the area. In the fall and winter hunting for upland game birds, migratory waterfowl, white-tailed deer, and several small mammal species is an important recreational activity. The large populations of deer and turkey are major attractions for sight-seers as well as hunters.

State and federal laws and regulations have been established to control hunting and fishing. Zones and periods may 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 (16 USC 460o-5). 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 NPS officials.

#### Threatened or Endangered Species

Table 8 lists 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 may exist in the area. Each site proposed for development will be surveyed for the presence of such species, or their critical habitat, before any construction occurs.

Vegetation. The small whorled pogonia (*Isotria medioloides*) is 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 recreation area.

Fish and Wildlife. 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 a threatened species because it may 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 does provide critical wintering habitat, and 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 inhabit the recreation area.

### 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, the national recreation area is designated as a class II 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 area by the states of Pennsylvania and New Jersey. If the area was redesignated, only a very limited deterioration of air quality 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.

Table 8: 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>Accipiter 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	
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 oryzivorus</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>Chidonias 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 that may become endangered if habitat and other conditions begin or continue to deteriorate.
- b - Only the breeding population is endangered.
- C - Species of concern.
- U - Status undetermined.



## CULTURAL RESOURCES

The cultural history of the Delaware 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 during the Transitional period were hunters and gatherers, settling only temporarily and depending heavily on the river for their fare. By the Late Woodland period 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 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.

The first contacts with Europeans followed 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 convenient 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 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 F.

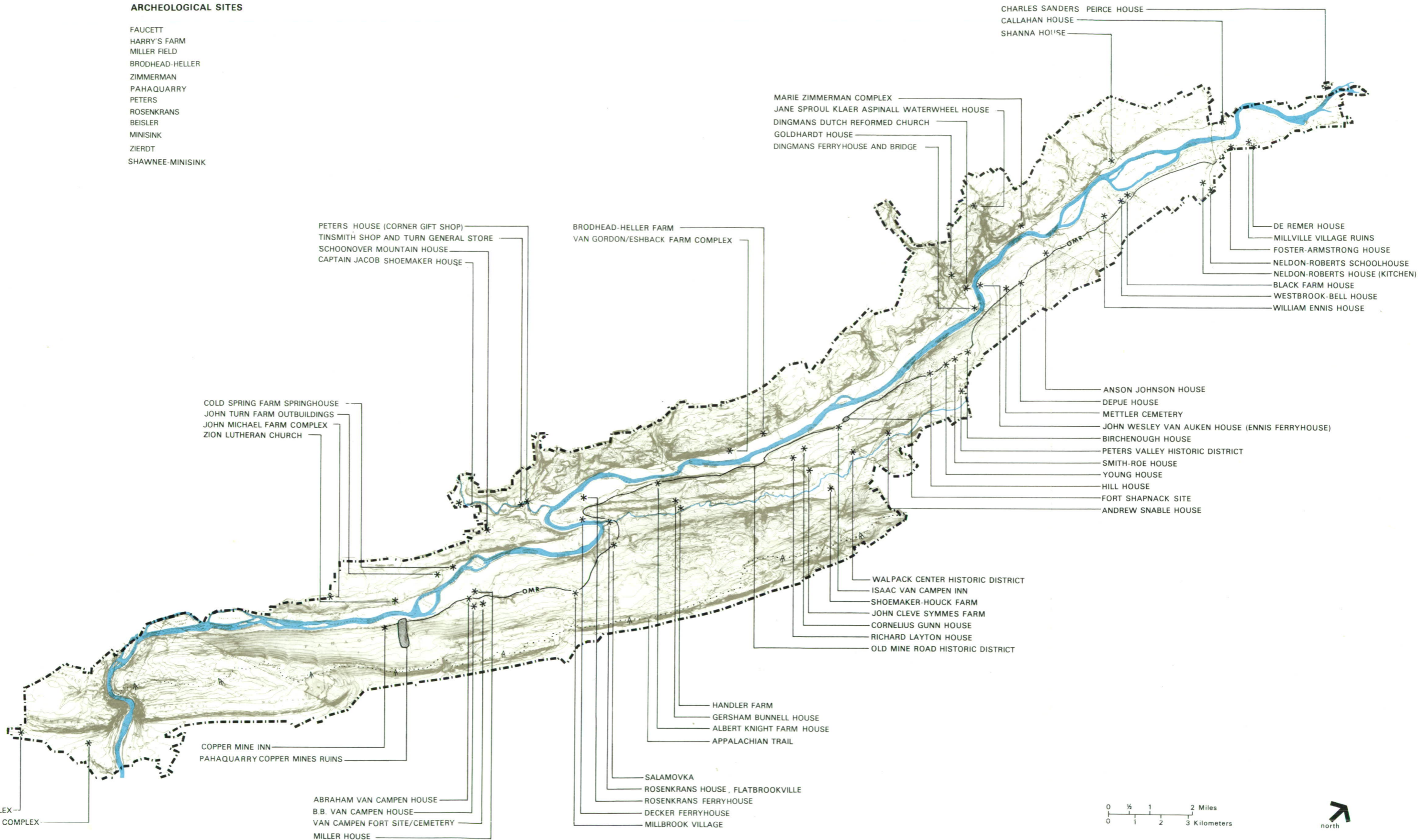
## SCENIC RESOURCES

The landscape of Delaware Water Gap is a combination of natural and cultural environments, with natural forces slowly removing the evidence of man's occupation and returning 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 for native Americans and then for European settlers, 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. Upland forests and the escarpment of the Pocono Plateau dominate the landscape on the Pennsylvania side of the river. Numerous

**ARCHEOLOGICAL SITES**

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



- CHARLES SANDERS PEIRCE HOUSE
- CALLAHAN HOUSE
- SHANNA HOUSE
- MARIE ZIMMERMAN COMPLEX
- JANE SPROUL KLAER ASPINALL WATERWHEEL HOUSE
- DINGMANS DUTCH REFORMED CHURCH
- GOLDHARDT HOUSE
- DINGMANS FERRYHOUSE AND BRIDGE
- 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

- PETERS HOUSE (CORNER GIFT SHOP)
- TINSMITH SHOP AND TURN GENERAL STORE
- SCHOONOVER MOUNTAIN HOUSE
- CAPTAIN JACOB SHOEMAKER HOUSE
- BRODHEAD-HELLER FARM
- VAN GORDON/ESHBACK FARM COMPLEX

- COLD SPRING FARM SPRINGHOUSE
- JOHN TURN FARM OUTBUILDINGS
- JOHN MICHAEL FARM COMPLEX
- ZION LUTHERAN CHURCH

- 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

- WALPACK CENTER HISTORIC DISTRICT
- ISAAC VAN CAMPEN INN
- SHOEMAKER-HOUCK FARM
- JOHN CLEVE SYMMES FARM
- CORNELIUS GUNN HOUSE
- RICHARD LAYTON HOUSE
- OLD MINE ROAD HISTORIC DISTRICT

- HANDLER FARM
- GERSHAM BUNNELL HOUSE
- ALBERT KNIGHT FARM HOUSE
- APPALACHIAN TRAIL

- COPPER MINE INN
- PAHAQUARRY COPPER MINES RUINS

- TOTTS GAP COMPLEX
- SLATEFORD FARM COMPLEX

- ABRAHAM VAN CAMPEN HOUSE
- B.B. VAN CAMPEN HOUSE
- VAN CAMPEN FORT SITE/CEMETERY
- MILLER HOUSE

- SALAMOVKA
- ROSENKRANS HOUSE, FLATBROOKVILLE
- ROSENKRANS FERRYHOUSE
- DECKER FERRYHOUSE
- MILLBROOK VILLAGE



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

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waterfalls have created 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 (Pocono Environmental Education Center), both resorts from earlier in this century, have become centers for community activities, youth programs, and environmental education. Although intensive logging interrupted natural processes in the past, much of the area is now approaching a climax state. A few sites, such as steep ravines in Pennsylvania, escaped logging and retain original vegetation communities.

Rolling hills leading up from the valley floor to the Kittatinny Mountains characterize the New Jersey side of the river. This rolling landscape has retained much of its rural character and has changed little since early settlement times. Human disturbance has stopped in recent decades, and the recovering vegetation is now a mixture of successional stages. Flatbrook Valley, which constitutes a 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 Pahaquarry Copper Mines and 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 offer recreational opportunities with a wilderness character. 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, some of which have been in operation for a hundred years, thus illustrating the evolution of farming practices.

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. 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.

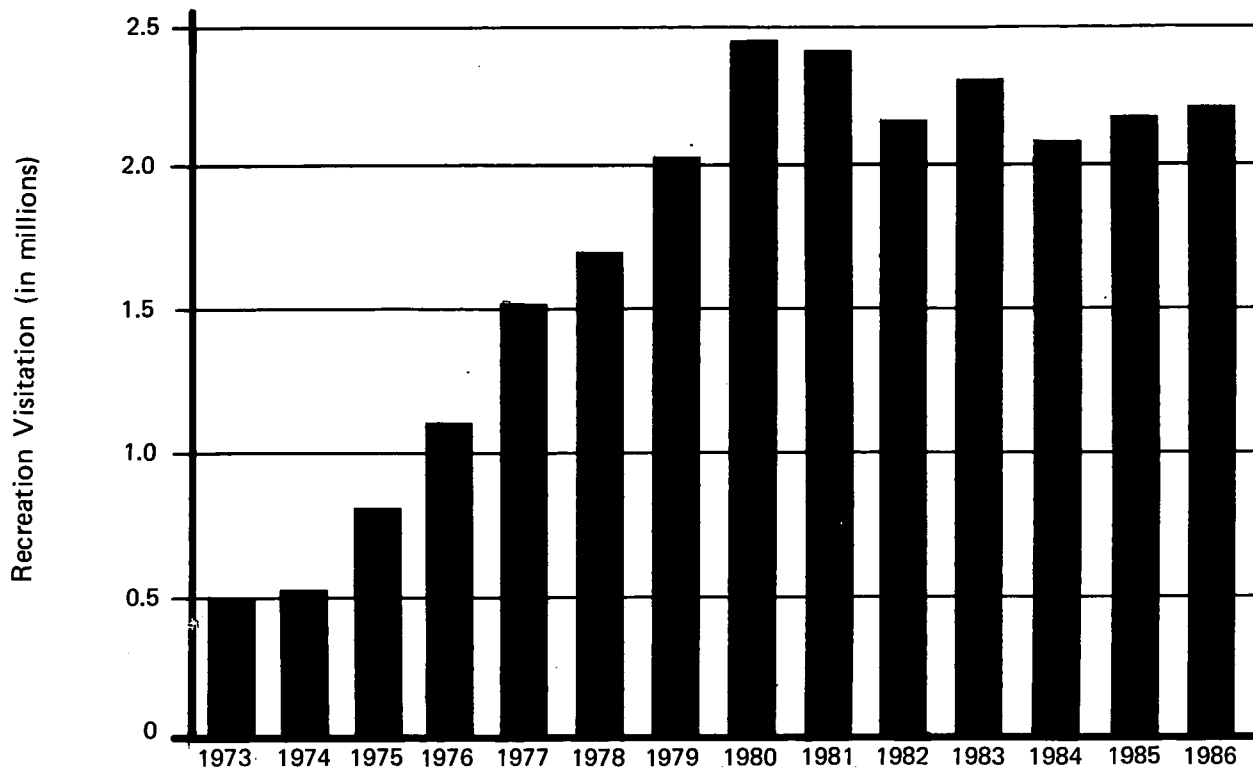
The bar graph for annual visits shows the overall increase in use. The sharp climb in use is not as dramatic as it appears because counting techniques have changed twice and the number of counting locations has nearly tripled. Nevertheless, more people are discovering the charm and abundant recreational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

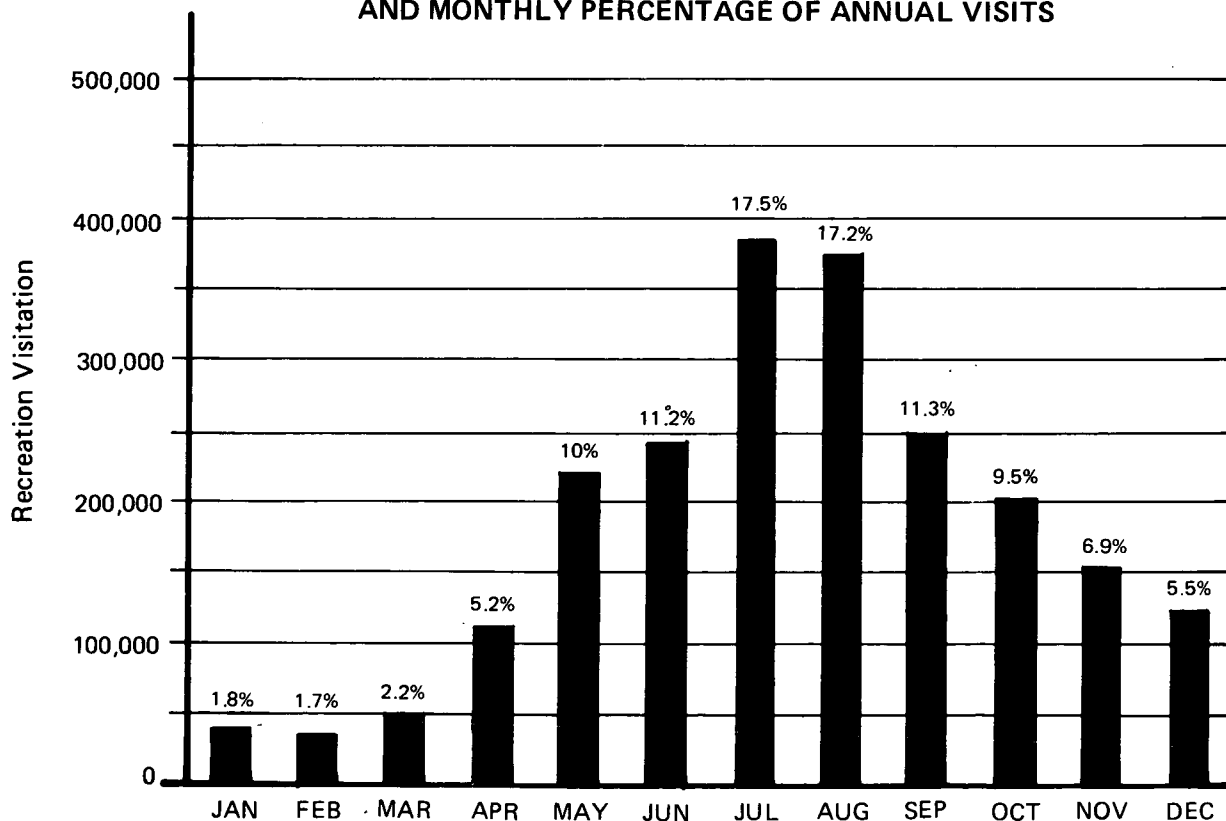
According to visitor use data for 1978-86, the Pennsylvania side of the river receives significantly higher recreational use than the New Jersey side, except for Kittatinny Point, which receives the highest number of visitors in the national recreation area. Kittatinny Point is the major visitor contact point, and it offers boat/canoe launch ramps, picnic areas, and sight-seeing opportunities. Milford and Smithfield (both of which have beaches, boat launches, and picnic areas) 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 National Scenic Trail is popular for long-distance hiking, nature study, sight-seeing, and camping. Other sites within the recreation area have high levels of visitor use, but less than the sites noted above.

Several former resorts or camp 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 courses in vocational skills, organic farming, wildlife management, forestry, freshwater environments, and other subjects. Other cooperative programs include the Peters Valley annual crafts fair and interpretation at Millbrook. The Millbrook Village Society

### ANNUAL VISITS 1973-1986



### AVERAGE MONTHLY VISITS 1978-1986 AND MONTHLY PERCENTAGE OF ANNUAL VISITS



also joins with the Park Service to sponsor the annual Millbrook Days. In 1986 more than 68,000 people participated in these cooperative activities.

Sight-seeing by car and on hikes is probably the most popular activity, but no figures have been collected to document this. The most popular recorded activities are canoeing, picnicking, hiking, swimming, fishing, boating, and hunting. The focus of most of these activities is the Delaware River, and in 1986 over 334,000 visits were related to river activities. Hunting and fishing are managed in cooperation with state fish and game commissions, and in 1986 there were 44,017 hunters and 115,497 fishermen. Visitors to the national recreation area are overwhelmingly urban and suburban residents from Pennsylvania, New Jersey, and New York. Day use is predominant, and overnight use (over 73,769 in 1986), is now limited to one concessioner-operated campground in Pennsylvania and 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 640 visits in 1986. 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 recreation area.

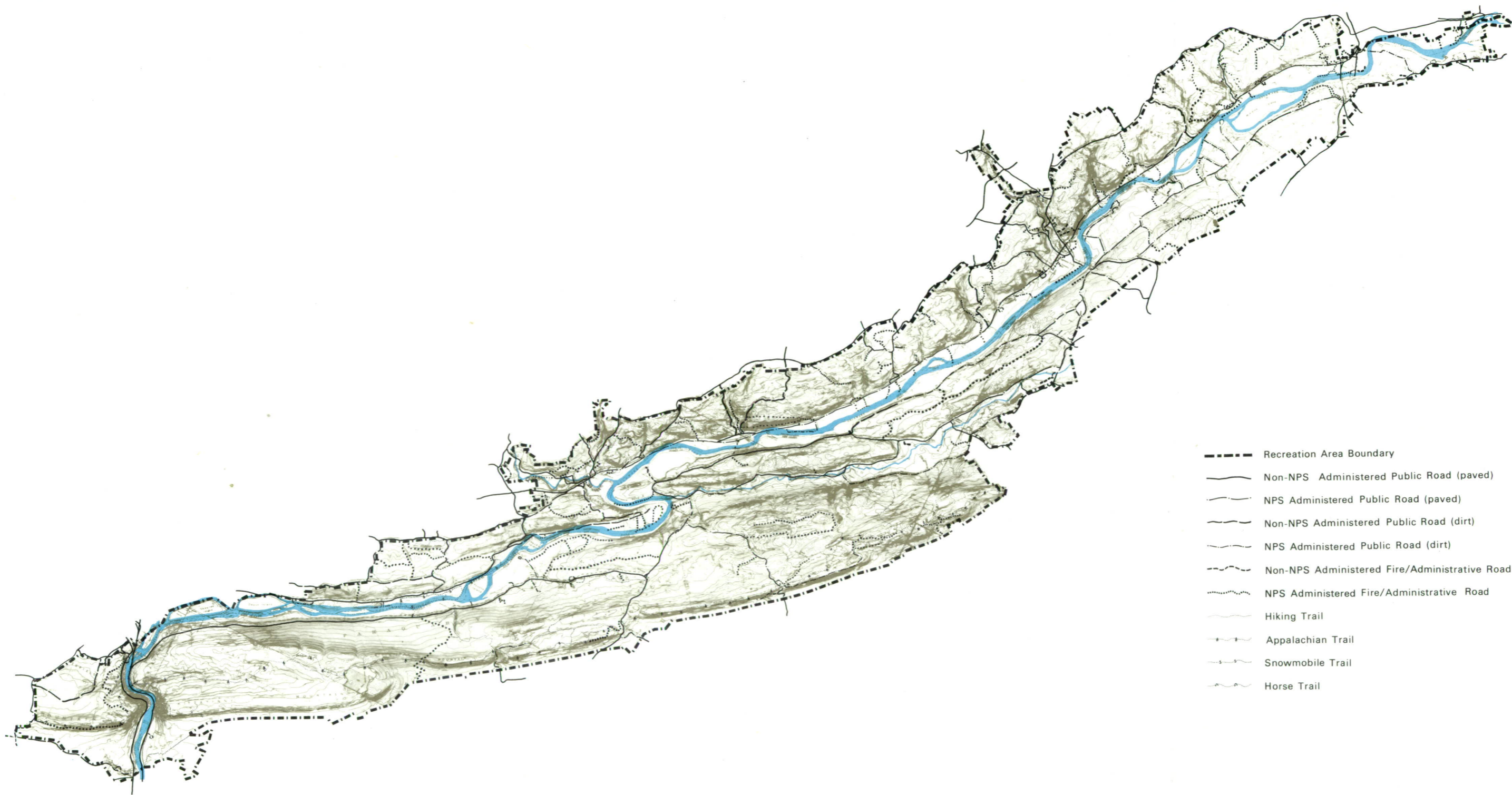
Cultural interpretation is conducted at Peters Valley, where skilled craftsmen produce, demonstrate, and teach their arts. Millbrook Village is interpreted as a turn-of-the-century rural settlement, and at Slatford Farm two historic homes and the early slate industry are interpreted.

### Projected Visitation

Recreation visits by 1996 with the implementation of this General Management Plan are projected to be between 5 million and 6.9 million. 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 was developed by considering the extent of existing facilities, the level of current development, and current visitor use trends. The range of projected recreation visits is based on a statistical model that uses 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.

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.





- 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



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

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## 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.

\* \* \*

## TITLE II—FLOOD CONTROL

Flood Control  
Act of 1962.

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

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.

UNITED STATES CODE, TITLE 16 – CONSERVATION

SUBCHAPTER LXXIII—DELAWARE  
WATER GAP NATIONAL  
RECREATION AREA

SUBCHAPTER REFERRED TO IN OTHER SECTIONS

This subchapter is referred to in section 1274 of this title.

§ 460o. Establishment of area; statement of purposes

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".

(Pub. L. 89-158, § 1, Sept. 1, 1965, 79 Stat. 612.)

REFERENCES IN TEXT

The joint resolution approved September 27, 1961, referred to in text, is Pub. L. 87-328, which was not classified to the Code.

§ 460o-1. Acquisition of lands

- (a) Authority of Secretary of Army; transfer of jurisdiction over lands to Secretary of the Interior; authority of such Secretary; retention of use and occupancy rights; termination and transfer of authority and funds; acquisition priorities

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 subchapter. Beginning on November 10, 1978, the Secretary of the Interior is authorized to acquire for purposes of the recreation area established under this subchapter 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) of this section. On November 10, 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 subchapter, 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 November 10, 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 judgment of the Secretary would suffer hardship if acquisition of their lands were delayed;

(3) acquisition of lands on which, in the judgment of the Secretary, there is an 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, in the judgment 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 judgment 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.

- (b) Omission of designated lands from area

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 subchapter.

**(c) Extension of boundaries; study and report to Congress**

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.

**(d) Noncommercial residential occupancy for life or fixed term of years; price for property; "improved residential property" defined; waiver of relocation assistance benefits or rights**

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 subchapter, 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 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 freehold 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 subchapter "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: *Provided, further*, That whenever an owner of property elects to retain a right of use and occupancy pursuant to this subchapter, 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 [42 U.S.C. 4601 et seq.].

(Pub. L. 89-158, § 2, Sept. 1, 1965, 79 Stat. 612; Pub. L. 92-575, § 2, Oct. 27, 1972, 86 Stat. 1250; Pub. L. 95-625, title III, § 316, Nov. 10, 1978, 92 Stat. 3483.)

**REFERENCES IN TEXT**

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, referred to in subsec. (d), is Pub. L. 91-646, Jan. 2, 1971, 84 Stat. 1894, as amended, which is classified generally to chapter 61 (§ 4601 et seq.) of Title 42, The Public Health and Welfare. For complete classification of this Act to the Code, see Short Title note set out under section 4601 of Title 42 and Tables.

**AMENDMENTS**

1978—Subsec. (a). Pub. L. 95-625 authorized acquisition of lands within the exterior boundaries of the area by the Secretary of the Interior, retention of use and occupancy rights, termination of Federal agency authority over lands and transfer of authority and funds to the Secretary of the Interior, and prescribed acquisition priorities for the Secretary of the Interior.

1972—Subsec. (d). Pub. L. 92-575 provided for waiver of benefits or rights under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, upon election to retain right of use and occupancy pursuant to this subchapter.

**SECTION REFERRED TO IN OTHER SECTIONS**

This section is referred to in sections 460a-2, 460a-7 of this title.

**§ 460a-2. Establishment of area**

**(a) Publication in Federal Register; description of boundaries; administration of transferred lands and waters**

As soon as practicable after September 1, 1965, 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 460a-1 of this title 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 subchapter.

**(b) Adjustments in boundaries; publication in Federal Register; acquisition of additional lands; acreage limitations**

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) Continuation of existing uses

On lands acquired pursuant to this subchapter 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 subchapter.

(Pub. L. 89-158, § 3, Sept. 1, 1965, 79 Stat. 613.)

§ 460o-3. Administration authorities for conservation, management, or disposal of natural resources; coordination of administrative responsibilities of the Secretary of the Interior and Secretary of the Army

In the administration of the area for the purposes of this subchapter, 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 subchapter. 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).

(Pub. L. 89-158, § 4, Sept. 1, 1965, 79 Stat. 613.)

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in section 460o-4 of this title.

§ 460o-4. Land and water use management plan; adoption, implementation, and revision; provisions

In the administration of the area for the purposes of this subchapter, the Secretary of the Interior, subject to provisions of section 460o-3 of this title, 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.

(Pub. L. 89-158, § 5, Sept. 1, 1965, 79 Stat. 614.)

§ 460o-5. Hunting and fishing

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.

(Pub. L. 89-158, § 6, Sept. 1, 1965, 79 Stat. 614.)

§ 460o-6. Civil and criminal jurisdiction and taxing power of the State

Nothing in this subchapter 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.

(Pub. L. 89-158, § 7, Sept. 1, 1965, 79 Stat. 614.)

§ 460o-7. Authorization of appropriations

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 460o-1 of this title and for expenses incident thereto not more than \$65,000,000 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).

(Pub. L. 89-158, § 8, Sept. 1, 1965, 79 Stat. 614;

Pub. L. 92-575, § 1, Oct. 27, 1972, 86 Stat. 1250.)

REFERENCES IN TEXT

The amounts authorized to be appropriated for the Tocks Island project and related facilities by the Flood Control Act of 1962, referred to in text, appear at 76 Stat. 1182, and were not classified to the Code. The Flood Control Act of 1962 is Title II of Pub. L. 87-874, Oct. 23, 1962, 76 Stat. 1173. For complete classification of this Act to the Code, see Tables.

AMENDMENTS

1972—Pub. L. 92-575 increased appropriations authorization to \$65,000,000 from \$37,412,000.

Chapter 28 — Wild and Scenic Rivers

\* \* \*

Sec. 1274. Component rivers and adjacent lands

(20) 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 chapter 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 November 10, 1978, 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 [16 U.S.C. 460o et seq.] shall be compatible with the purposes of this chapter and shall be located at an appropriate distance from the river.

**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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The Wild and Scenic Rivers Act (Pub. L. 90-  
 542 as amended through Pub. L. 96-487)

### 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 it 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 nonsuitability 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 nonsuitability 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 an 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 practice 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 8  
 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.

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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	Shaded																													
2. Resource Inventories (a) Study Bdny. Locations (b) River eligibility and classification evalu. (c) Literature search (d) Other agency contacts (e) Resource maps	Shaded	Shaded	Shaded	Shaded	Shaded																									
3. Develop alternative (a) Prepare alternatives display (b) Public meetings on findings and alternat. (c) Analyze Public Input (d) Evaluate alternatives							Shaded	Shaded	Shaded	Shaded																				
4. Complete Preliminary Report/DEIS										Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
5. Review of Draft (a) Internal Review (b) Revise Preliminary as needed (c) Prepare camera 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 decision 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.

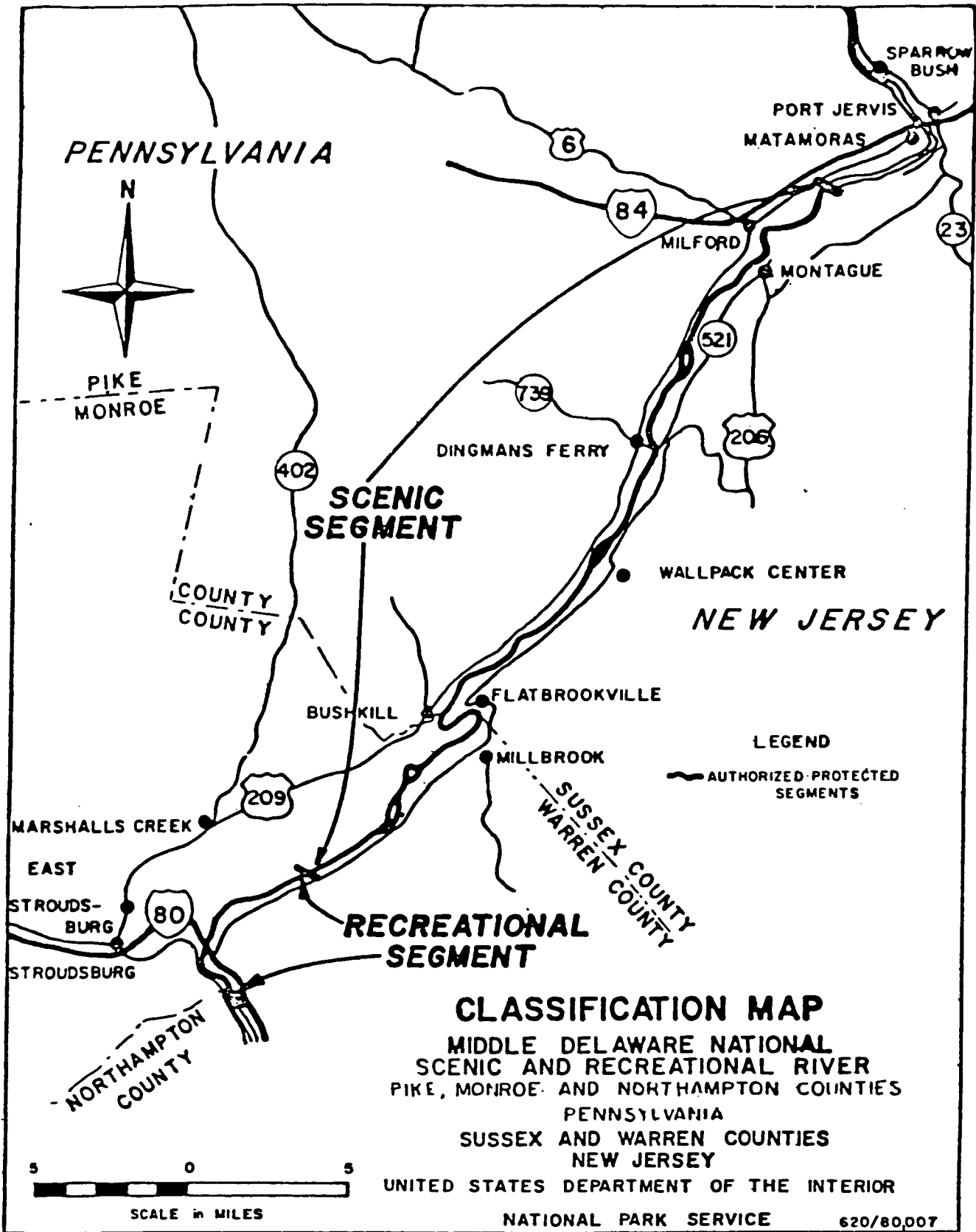
TABLE 2.  
CLASSIFICATION CRITERIA FOR WILD, SCENIC AND RECREATIONAL RIVER AREAS \*

ATTRIBUTE	WILD	SCENIC	RECREATIONAL
Water Resources 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.  Lands may have been developed for the full range of agricultural and forestry uses.  May show evidence of past and ongoing timber harvest.
Accessibility	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 aesthetics, 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 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.	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.

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## APPENDIX C: MANAGEMENT OBJECTIVES

Management 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 General Management 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.



## APPENDIX D: CONSULTATION AND COORDINATION IN THE DEVELOPMENT OF THE PLAN

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. During the past 12 years many agencies, organizations, and individuals have been consulted, and the comments are summarized below.

### SUMMARY OF PUBLIC 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. Approximately 1,900 sets of documents were distributed in late October 1980 to local, state, and federal governmental agencies; to individuals and groups on the recreation area's mailing list; and to others upon request.

Public comments were invited in three ways: written comments, public meetings, and informal consultation and discussion between the NPS planning team and representatives of local agencies and others. By the close of the comment period (January 15, 1981), a total of 165 responses of all types had been received (discounting duplications, i.e., persons who commented at meetings and also wrote a letter, or one person speaking at several public meetings or consultations). The issues and concerns were carefully considered for the Draft General Management Plan / Environmental Assessment (June 1986), and they were summarized in that document.

### SUMMARY OF COMMENTS ON THE DRAFT GENERAL MANAGEMENT PLAN / ENVIRONMENTAL ASSESSMENT

The Draft General Management Plan / Environmental Assessment was on public review from June 15 to October 15, 1986. Over 1,400 copies of the document were distributed to government officials, groups, and individuals on the recreation area's mailing list, as well as to additional individuals by request.

Seven open-house meetings were held July 23-26, 1986, at four locations in the recreation area. These were informal discussion meetings where members of the planning team and recreation area staff were available to answer questions, explain the plan, and accept comments from all interested persons and organizations. Approximately 300 individuals attended the seven sessions, of whom 177 signed attendance registration forms. In addition recreation area staff members made presentations on request to local boards of supervisors, homeowner associations (400 attended one meeting), sportsmen's groups, and other special interest groups.

A total of 1,039 responses were received during the 120-day review period. Of these 955 were from individuals, 55 were from representatives and members of groups and organizations, and 29 were from state and local government officials. Seven inquiries about the plan were received from members of Congress. A total of 450 comments were received from New Jersey, 411 from Pennsylvania, 78 from New York, and 43 from other locations. A total of 316 comments were received from Pennsylvania cities and towns in the area of Delaware Water Gap (including 225 from Bushkill, 35 from East Stroudsburg, 31 from Stroudsburg, 9 from Milford, and 6 from Dingmans Ferry) and 153 from New Jersey cities and towns (including 97 from Blairstown, 29 from Newton, 12 from Columbia, 7 from Branchville, and 6 from Stillwater).

The comments covered a wide range of interests and concerns for the preservation and use of the recreation area. Of the comments that indicated a preference for an alternative, 620 favored the continuation of existing conditions, with some development and improvement of facilities (alternative 1). The proposed plan was supported by 213, and only five commenters supported greater commercial development under alternative 2. The opposition to alternative 2 was mostly due to the anticipated impact that development could have on the natural environment and the increased number of people it would draw to the region. The protection of the natural environment was of primary importance to the majority of commenters, regardless of which alternative they preferred. Support was received for additional access for activities such as river use, hiking, sight-seeing, hunting, fishing, and visiting historic structures and recreation sites. Many commenters stated that more visitors would affect roads and emergency services, as well as the character of the respective communities.

The following major topics of concern are listed in the order they were presented in the Draft General Management Plan / Environmental Assessment. For each topic the concerns and issues raised by the commenters are summarized, followed by a list indicating the range and number of comments on that particular topic.

### Scenic Landscape Management

Many commenters thought of scenic landscape management in terms of the landscape as seen from near the river. Comments fell into two categories: Let the recreation area go natural, and keep it as it is. Commenters were strongly opposed to lumbering, logging, and clear-cutting for the purpose of landscape management. Some supported timber management for other reasons, such as having a variety of scenery and wildlife habitat. Agricultural uses were very strongly supported.

Have more forested areas	6
Keep some land open by farming	3
Maintain the landscape as is	15
Keep the area natural	12
Inventory outstanding natural features	2
Keep areas for wildlife and scenery	2
Ensure that the landscape plan complies with all state hunting laws	1

### Natural Resources

The majority of commenters addressed the need to leave the recreation area in a natural state. Mining was opposed by all commenters. Timber cutting was not supported as a commercial activity, but it was acceptable for improving wildlife habitat. Continued farming practices under the agricultural permit system received support, but several comments stated it was not needed. General concern over impacts on water quality was expressed in relation to the possible increase in visitation and activities in the recreation area. Some commenters said more visitors would increase trash.

Continue protection of natural resources by controlling farming and forestry practices and encouraging native species and habitat	16
Make the area a black bear sanctuary	1
Support habitat improvement programs for turkeys	1
Eliminate developments in wetlands	2
Focus on the protection of the larger ecosystem	1
Do not permit mining	6
Allow no commercial cutting of timber	10
Allow selective timber cutting	3
Allow timber harvesting within a range of percentages (50%-10%)	3
Continue agricultural practices	15
Eliminate agricultural practices	2
Make crops more diverse	1
Protect the watershed from pollution	7

### Cultural Resources

Cultural resource actions proposed in the draft plan were generally supported in all comments but one. Preservation and protection of historic buildings and sites as well as farms and village settings were future actions specifically described as necessary.

Preserve historic buildings	12
Care for artifacts and museum pieces	1
Open historic buildings to tours	1
Don't waste money preserving "historic" buildings	1
Preserve historic farms, fields, and communities such as Millbrook Village	2

### Interpretation

Continuing and improving interpretive activities in the recreation area was the major focus of comments. Specific areas and types of programs were mentioned in each comment. General support for interpretive programs was received.

Develop an interpretive program/activity in specific places	6
Develop more river interpretive programs	1
Concentrate development at educational facilities	3

### Recreational Uses

The largest number of comments related to recreational activities. Most comments focused on specific activities, as well as their regulation and accessibility to frequent users of the area. Powerboating, soaring with gliders, and hang-gliding were mentioned most. Snowmobiling, cross-country skiing, hiking, and hunting were also listed.

Do not allow speedboats; keep a 5 mph limit on the river	27
Do not restrict the river speed limit to 5 mph; provide opportunities for waterskiing	52
Designate a landing area for gliders	88
Expand/maintain hang-gliding areas	12
Do not allow snowmobiling	9
Increase cross-country ski trails	3
Increase hiking activities	3
Maintain hunting activities	2

### Visitation (Number of Visits)

Many commenters were concerned about increasing the number of visitors to the recreation area. Specific comments related to anticipated increases and to other actions that could cause an increase in visits.

Increased visitation would damage the area	5
Increased use would strain local fire, rescue, and police departments	3
Increased use would affect the road system	2
The number of people should be reduced by limiting the size of facilities	1

### Administration/Operations

All comments in this category related to the existing operation of the recreation area, especially NPS patrols by rangers.

Provide more rangers to patrol the area	10
Increase the staff as the number of visitors increases	3

### Development

Comments on development varied from doing nothing to building some new facilities. The majority of commenters preferred that existing facilities not be made larger, but some said a few new small improvements are warranted. Commercial development and large-scale NPS development received little support.

Do not add many new developments	16
Increase development in the recreation area	3
Keep commercial development out	21
Make more facilities handicap accessible	2
Build more comfort stations and trash containers	2
Avoid the construction of buildings in floodplains	2

### River Access and Beach Development

Comments on river access and beach development covered a wide range of possible actions described for all three alternatives. Specific suggestions ranged from adding new facilities to removing existing development at one area. Most commenters supported some increase in access for river activities.

Provide more boat/canoe access points	19
Move or scale down the proposed Sandyston Beach	5
Build Sandyston Beach	3
Delete new boat ramps	3
Limit river access	8
Do not enlarge Milford Beach	1
Provide new swimming areas	6
Do not provide new swimming areas	5
Increased activities would affect the natural setting and cause crowding	5

### Camping

Additional canoe, backcountry, and developed camping facilities were supported by the majority of commenters. Concession operations received little support. Dispersed camping along trails was described as a good way to provide a new activity for hikers, horseback riders, and other recreationists.

Eliminate concessioner campgrounds	13
Allow concessioner campgrounds for family camping	3
Support backcountry camping	13
Provide additional canoe campsites	7

## Trails

Most comments expressed support for the addition or improvement of hiking, bicycling, and horseback-riding trails. The restrictions suggested for their placement related to not disturbing natural areas and staying away from the Appalachian Trail.

Construct more bicycle trails	11
Expand the hiking trail system	20
Construct horseback-riding trails	8
Do not construct new trails	1
Do not allow snowmobiles, dirt bikes, and all-terrain vehicles in the recreation area	2

## Roads

Comments received on roads mostly requested increased maintenance and improvements of existing roads. Many commenters requested that no roads be closed and that some improvements be made for access points currently used by local residents and recreation area visitors.

Close some roads	5
Do not close any roads	8
Improve inadequate roads	6
Improve existing roads	11
Improve signs	4
Do not increase traffic on roads	14

## Food Service and Concessions

Specific comments on this topic related to private commercial activities besides food service facilities. The overwhelming majority of comments did not support the inclusion of any new concessioner facilities in the recreation area. Some specific activities, such as bed-and-breakfast and small food service facilities at specific locations did receive favorable comments.

Do not encourage concessioner facilities	13
Keep commercial enterprises small	2
Use historic sites as bed-and-breakfast inns	1

## Environmental Consequences: Local Economy

Most of the comments on economic impacts of implementing one of the alternatives were from local residents concerned about the projected increase in visitation to the recreation area and the resulting effects on local roads and emergency services. Many commenters did not necessarily reject the proposal, but were reacting more to possible effects and the need to mitigate them. The majority of commenters stated that they wanted no increase in visitors to the region.

Roads around the park cannot handle traffic increases	16
Local towns cannot handle emergency services with an increase in visitors	11
An increase in visitors would cause increased local taxes to keep up with needed services	4
Burdens on local governments would increase in areas outside the recreation area	6

Environmental Consequences: Public Recreational Experiences

Comments related to hunting and fishing and the possible effects of the plan on these activities. The comments supported a continuation of existing activities, the improvement of wildlife and fish habitats through existing programs, and coordination of programs with state offices. Sportsmen's groups responded favorably to the proposed plan.

Would prefer hunting and fishing over new development	1
Leave areas open to hunting as they are now	2
Reduce sport hunting	2
Increase stocking of fish	2
Keep all land open for hunting, fishing, and trapping	4

As a result of these comments, the General Management Plan has been revised. The changes are described briefly in the "Introduction" to the plan.

CONSULTATION ON CULTURAL RESOURCES

A programmatic memorandum of agreement between the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers has eliminated the requirement for the council and state officers to review proposed plans if they have been developed in consultation with the council and the appropriate state historic preservation officers. The Advisory Council and the New Jersey and Pennsylvania historic preservation officers have participated in the planning for Delaware Water Gap through consultations and on-site inspections.

Copies of the Draft General Management Plan / Environmental Assessment were transmitted to the state historic preservation officers and the Advisory Council with a request for review of and concurrence with the document content. The New Jersey state historic preservation officer expressed support for the proposed action, while no comments were received from the Pennsylvania state historic preservation officer or the Advisory Council.

Specific concerns have been addressed, and changes to cultural resource information were sent to the states and the Advisory Council for comment before this plan was approved. (Copies of letters are reprinted at the

end of this appendix; no comments or objections were received as responses to these letters.) All actions in this plan that relate to cultural resources have been reviewed for compliance with section 106 of the National Historic Preservation Act, as amended.

Assessment-of-effect forms will be required for implementing proposed actions to ensure that the requirements of NPS regulations and guidelines are followed. Additional information on archeological sites and rural historic districts will be identified as part of future studies. The identification of new National Register properties (sites or districts) will not affect properties or actions described in this plan. Additional compliance procedures may be required for any future actions on significant new sites that may be identified.

#### CONSULTATIONS WITH STATE AND LOCAL AGENCIES AND CITIZENS GROUPS

Consultations have been held on a continuing basis with the local county governments and with state and federal agencies (see list below). 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.

#### Federal Agencies 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' Groups

Appalachian Mountain Club  
Appalachian Trail Conference  
Delaware River Power Boat Association  
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  
Soaring Society of America  
Trout Unlimited, North Jersey Chapter  
Water Resources Association of the Delaware River Basin

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United States Department of the Interior  
NATIONAL PARK SERVICE  
MID-ATLANTIC REGION  
143 SOUTH THIRD STREET  
PHILADELPHIA, PA 19106

IN REPLY REFER TO:  
D18 (MAR/CR)

April 8, 1987

Dr. Larry E. Tise  
State Historic Preservation Office  
Pennsylvania Historical and Museum Commission  
P.O. Box 1026  
Harrisburg, Pennsylvania 17108

Dear Dr. Tise:

In accordance with Stipulation 4 of the 1981 Amendment to the Programmatic Memorandum of Agreement on National Park Service planning documents, we are pleased to notify you that we have selected a revised version of the preferred alternative ("the Proposal") contained in the Draft General Management Plan/Environmental Assessment for Delaware Water Gap National Recreation Area, Pennsylvania and New Jersey. A copy of that document was submitted for your review on June 11, 1986; no reply was received.

As specified in Stipulation 4, we request that you notify us if you object to our chosen alternative within fifteen (15) working days. The chosen alternative, as regards cultural resources, is discussed on pages 38-54, 126-31, and in Appendix G, pages 196-212, in the enclosed GMP dated March 1987. We are also notifying the New Jersey State Preservation Officer, and the Advisory Council on Historic Preservation of our decision. Please send your comments, if any, to this office (attention: Clifford Tobias). If you need additional information, please contact Linda Romola of the Denver Service Center, at (303) 236-8863. Your cooperation and participation in the planning process for Delaware Water Gap are greatly appreciated.

Sincerely,

/s/ Sandra C. Rosencrans

for James W. Coleman, Jr.  
Regional Director

Enclosure

Similar letters to Mr. Gregory Marshall, Deputy SHPO, Trenton (attn: Ms. B. Sullebarger), and Mr. Robert Fink, ACHP, Denver (Attn: Ms. M. Ingle) (w/cpys. encls.)

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United States Department of the Interior  
NATIONAL PARK SERVICE  
MID-ATLANTIC REGION  
143 SOUTH THIRD STREET  
PHILADELPHIA, PA 19106

IN REPLY REFER TO:  
D18 (MAR/CR)

April 9, 1987

Mr. Gregory A. Marshall  
Deputy State Historic Preservation Officer  
Department of Environmental Protection  
Office of New Jersey Heritage CN 404  
Trenton, New Jersey 08625

Dear Mr. Marshall:

In accordance with Stipulation 4 of the 1981 Amendment to the Programmatic Memorandum of Agreement on National Park Service planning documents, we are pleased to notify you that we have selected a revised version of the preferred alternative ("the Proposal") contained in the Draft General Management Plan/Environmental Assessment for Delaware Water Gap National Recreation Area, Pennsylvania and New Jersey. A copy of that document was submitted for your review on June 11, 1986; you replied on August 15.

As specified in Stipulation 4, we request that you notify us if you object to our chosen alternative within fifteen (15) working days. The chosen alternative, as regards cultural resources, is discussed on pages 38-54, 126-31, and in Appendix G, pages 196-212, in the enclosed GMP dated March 1987.

Regarding the concerns expressed in your August 15 letter, please see pages 45-46 for a discussion of the historic buildings proposed for benign neglect and their removal and recordation, and Table 4, page 52, for the treatment of non-federally owned buildings acquired in fee. Table 3, pages 43-44, now includes additional treatment options, and "Rehabilitation" has replaced "Modification" as a treatment (pages 42-45).

We are also notifying the Pennsylvania State Historic Preservation Officer and the Advisory Council on Historic Preservation of our decision. Please send your comments, if any, to this office (attention: Clifford Tobias). If you need additional information, please contact Linda Romola of the Denver Service Center, at (303) 236-8863. Your cooperation and

participation in the planning process for Delaware Water Gap are greatly appreciated.

Sincerely,

/s/ Sandra C. Rosencrans

for James W. Coleman, Jr.  
Regional Director

Enclosure

Similar letters to Dr. Larry Tise, SHPO, Harrisburg (attn: Mr. D. Deibler), and Mr. Robert Fink, ACHP, Denver (Attn: Ms. M. Ingle) (w/cpys. encls.)

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United States Department of the Interior  
NATIONAL PARK SERVICE  
MID-ATLANTIC REGION  
143 SOUTH THIRD STREET  
PHILADELPHIA, PA 19106

IN REPLY REFER TO:  
D18 (MAR/CR)

April 9, 1987

Mr. Robert Fink  
Chief, Western Division of Project Review  
Advisory Council on Historic Preservation  
730 Simms Street, Room 450  
Golden, Colorado 80401

Dear Mr. Fink:

In accordance with Stipulation 4 of the 1981 Amendment to the Programmatic Memorandum of Agreement on National Park Service planning documents, we are pleased to notify you that we have selected a revised version of the preferred alternative ("the Proposal") contained in the Draft General Management Plan/Environmental Assessment for Delaware Water Gap National Recreation Area, Pennsylvania and New Jersey. A copy of that document was submitted for your review on June 11, 1986; no reply was received.

As specified in Stipulation 4, we request that you notify us if you object to our chosen alternative within fifteen (15) working days. The chosen alternative, as regards cultural resources, is discussed on pages 38-54, 126-31, and in Appendix G, pages 196-212, in the enclosed GMP dated March 1987. Minor editorial changes will be made prior to the final printing of the plan. The printed plan will be sent to you. We are also notifying the Pennsylvania and New Jersey State Historic Preservation Officers of our decision. Please send your comments, if any, to this office (attention: Clifford Tobias). If you need additional information, please contact Linda Romola of the Denver Service Center, at FTS-776-8863. Your cooperation and participation in the planning process for Delaware Water Gap are greatly appreciated.

Sincerely,

/s/ Sandra C. Rosencrans

for James W. Coleman, Jr.  
Regional Director

Enclosure

Similar letters to Dr. Larry Tise, SHPO, Harrisburg (attn: Mr. D. Deibler), and Mr. Gregory Marshall, Deputy SHPO, Trenton (attn: Ms. B. Sullebarger) (w/cpys. encls.)

[end copy]

APPENDIX E: FINDING OF NO SIGNIFICANT IMPACT

The final plan as described in the 1987 General Management Plan for Delaware Water Gap National Recreation Area does not constitute a major federal action that will significantly affect the quality of the human environment, as defined in section 102(2)(c) of the National Environmental Policy Act of 1969 (PL 91-190, 83 Stat. 853). Therefore, the National Park Service will not prepare an environmental impact statement for the General Management Plan.

Compliance with section 106 of the National Historic Preservation Act of 1966, as amended, has been undertaken in accordance with the programmatic memorandum of agreement of September 1981 between the National Park Service, the National Conference of State Historic Preservation Officers, and the Advisory Council on Historic Preservation, pursuant to 36 CFR 800. At the beginning of the general management planning process, the council and the New Jersey and Pennsylvania state historic preservation officers were invited to participate. Consultation has occurred during the development of this plan and on changes to the Draft General Management Plan.

*James W. Coleman, Jr.*  
James W. Coleman, Jr., Regional Director  
Mid-Atlantic Region, National Park Service

*5-8-87*  
date

## APPENDIX F: 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 significant 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; the Perkiomen and Orient components, as well as an unnamed component; the Early, Middle, and Late Woodland components; and the Tribal component.



Faucett (F)--This site is 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 along 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 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. Fourteen 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. 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 significant 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.

\*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 milkhouse.

\*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. Garris 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 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

Flatbrookville: The Rosenkrans house (previously described) is the only structure in this village to be included on the National Register. The remaining structures in the village are not significant.

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 other buildings in the village do not contribute to the historic district.

The Slateford Farm Complex: Its status for inclusion on the National Register is being reevaluated. It will continue to be operated as a cultural site as part of the recreation area's interpretive program.

Jane Layton House: This house lacks architectural integrity. The two sections of the 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.

Shimer House: The Shimer house has also undergone major structural changes. The existing structure is not the one where historical activities occurred.

McCarty Homestead: This property was declared not eligible for the National Register of Historic Places by the secretary of interior because it did not meet the criteria.

Fort Hyndshaw Site: The location of the fort 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 construction 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 rehabilitation, 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 rehabilitation, and site improvements	\$ 80,000
<u>B.B. Van Campen House</u> - Exterior preservation, interior rehabilitation, 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 rehabilitation, and site improvements	\$ 150,000
<u>Callahan House</u> - Exterior and interior preservation and stabilization, and site improvements	\$ 190,000
<u>Captain Jacob Shoemaker House</u> - Exterior and interior preservation and stabilization, interior rehabilitation, and site improvements	\$ 120,000
<u>Charles Sanders Peirce House</u> - Exterior restoration, partial restoration and preservation, interior preservation and rehabilitation, rehabilitation of utilities, and site improvements	\$ 360,000
<u>Copper Mine Inn</u> - Exterior preservation, interior rehabilitation, rehabilitation of utilities, and site improvements	\$ 250,000
<u>Cornelius Gunn House</u> - Partial restoration and preservation of exterior, rehabilitation and preservation 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, rehabilitation of interiors, and site improvements	\$ 230,000

<u>Dingmans Dutch Reformed Church</u> - Exterior preservation and interior rehabilitation	\$ 200,000
<u>Goldhardt House</u> - Exterior preservation, interior rehabilitation, and site improvements	\$ 110,000
<u>Hill House</u> - Exterior preservation, interior rehabilitation, 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 rehabilitation 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. Garris houses, Millbrook schoolhouse, and other buildings and outbuildings; rehabilitation of utilities; and site improvements	\$ 530,000
<u>Miller House</u> - Exterior preservation, interior preservation and rehabilitation, 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, interior rehabilitation, 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 rehabilitation, 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 rehabilitation, rehabilitation of utilities, and site improvements	\$ 200,000
<u>Shanna House</u> - Exterior preservation, interior rehabilitation, 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>Totts Gap Complex</u> - Exterior preservation and interior rehabilitation of Weinman farmhouse, large barn, long barn, milkhouse, 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 rehabilitation 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 rehabilitation, rehabilitation of utilities, and site improvements	\$ 170,000

<u>William Ennis House</u> - Limited exterior restoration, interior rehabilitation, rehabilitation of utilities, and site improvements	<u>\$ 170,000</u>
Net Construction Total	\$ 7,418,500
Indirect Cost*	<u>4,154,500</u>
Gross Construction Total	\$11,573,000

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.

\*Indirect costs cover surveys, design services, preparation of construction documents, contract award and administration, construction supervision, etc.



APPENDIX G: DEVELOPMENT SITES WITHIN THE FLOODPLAIN  
AND THE POTENTIAL DAM POOL

Table G-1: Development Sites in the Floodplain (42 sites total)

6. Resort Point
8. Shawnee
11. Smithfield
12. Hialeah Airpark
13. Ferry Landing
18. Cold Spring
20. Bushkill Access
21. Valley View
22. Toms Creek Picnic area
24. Eshback
27. Shapnack Access
28. Hornbeck
29. Hornbeck Creek Access
31. Childs Picnic Area
35. Dingmans Launch
36. Dry Brook
40. Indian Point
41. Tocks Airpark
45. Milford Beach
50. Kittatinny Point
51. Dunfield Creek
53. Copper Mine Inn
54. Dimmicks Launch
55. Pahaquarry Copper Mines
56. Poxono
57. Depew Recreation Site
60. Hamilton
63. Rivers Bend
65. Peters
66. Smith Ferry
67. Buck
71. Fort John
74. Buttermilk Falls
75. Walpack Inn
76. New Jersey District Office
81. Sandyston, Beach
82. Kettle Holes Campground
83. Sandyston Canoe Campsites
85. Namanock
87. Minisink
88. White Brook
92. Millville Access

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Note: Numbers refer to the General Development map.

Table G-2: Development Sites in the Potential Dam Pool (56 sites total)

	Development Net Cost
10. Hialeah Picnic Area	\$ 177,000
11. Smithfield	202,000
12. Hialeah Airpark	0
13. Ferry Landing	94,000
16. Sand Hill NRA Entrance	1,023,000
17. Miller-Hagen	162,000
18. Cold Spring	8,000
19. Bushkill	132,000
20. Bushkill Access	299,000
21. Valley View	92,000
22. Toms Creek Picnic Area	0
24. Eshback	500,000
25. Pocono Access	85,000
27. Shapnack Access	8,000
28. Hornbeck	285,000
29. Hornbeck Creek Access	12,000
33. Dingmans Campground	200,000*
34. Pennsylvania District Office	132,000
35. Dingmans Launch	1,485,000
36. Dry Brook	28,000
37. Zimmerman Farm - Maintenance Area	1,200,000
39. Shanna House	561,000*
40. Indian Point	12,000
41. Tocks Airpark	10,000
45. Milford Beach	1,267,000
46. Roberts Lane	8,000
53. Copper Mine Inn	911,000*
54. Dimmicks Launch	71,000
55. Pahaquarry Copper Mines	92,000
56. Poxono	12,000
57. Depew Recreation Site	810,000
59. Van Campens Glen	133,000
60. Hamilton	91,000
63. Rivers Bend	466,000
64. Stevens Point	93,000
65. Peters	174,000
66. Smith Ferry	64,000
67. Buck	122,000
71. Fort John	94,000
72. Shadow Farm	**
73. Flatbrook Valley Overlook	57,000
74. Buttermilk Falls	407,000
75. Walpack Inn	**
76. New Jersey District Office	83,000
77. Walpack Valley Environmental Education Center	237,000
78. Walpack Center	1,660,000*
81. Sandyston Beach	2,711,000
82. Kettle Holes Campground	1,461,000*
83. Sandyston Canoe Campsites	107,000
85. Namanock	275,000
86. Old Mine Road Youth Hostel	29,000*
87. Minisink	64,000
88. White Brook	64,000
91. Millville	161,000
92. Millville Access	182,000
93. Quicks Island Access	64,000
Total	\$18,677,000

Note: Numbers refer to the General Development map.

\* Site operated under concession contract and requiring some private sector capital.

\*\*Concessioner-development cost from the private sector.

## APPENDIX H: COST ESTIMATES AND IMPLEMENTATION SCHEDULES

Cost estimates are presented for facility development, roads and trails, historic structures, and annual park operations. The estimates are conceptual 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 are included in the site totals. Costs that could be underwritten by private capital are also indicated.

### ROADS AND TRAILS

Table H-2 shows the costs for necessary repairs to roads under federal ownership. Categories of use refer to those shown on the Roads map. This 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 in the recreation area has been a cooperative effort between the National Park Service and local groups. Bicycle, skiing, and equestrian groups continue to express interest in developing additional trails. Many of the costs associated with the development, rehabilitation, and maintenance of trails may be borne by cooperating groups, including the Appalachian Trail clubs.

### HISTORIC STRUCTURES

The leasing of historic structures will continue to be emphasized (table H-3). The determination of which structures could be leased and which will continue to be used by the National Park Service is based on the qualities of the structures (see appendix F) and their economic viability for commercial activity.

### 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  
(1985 dollars)

Phase 1 (1-5 years)	Development Cost	Phase 2 (5-10 years)	Development Cost
Slateford Farm	\$ 582,000	Point of Gap	322,000
Hialeah NRA Entrance	29,000	Ferry Landing	94,000
Hialeah Picnic Area	177,000	Sand Hill NRA Entrance	1,023,000
Smithfield	202,000	Cold Spring	8,000
Hidden Lake	818,000	Bushkill Schoolhouse	132,000
NRA Headquarters	50,000	Stucki Pond	43,000
Miller-Hagen	162,000	Eshback	500,000
Bushkill Access	299,000	Loch Lomond	46,000
Valley View	92,000	Dingmans Campground	200,000*
Pocono Access	85,000	PA District Office	132,000
Shapnack Access	8,000	Zimmerman Farm--Maintenance Area	1,200,000
Hornbeck	285,000	Raymondskill Falls	58,000
Hornbeck Creek Access	12,000	Tocks Airpark	10,000
Childs Picnic Area	529,000	Fechter Pond	101,000
Dingmans Falls	120,000	Lapawansa NRA Entrance	1,024,000
Dingmans Launch	1,485,000	Dunfield Creek	219,000
Dry Brook	28,000	Dimmicks Launch	71,000
Shanna House	561,000*	Pahaquarry Copper Mines	92,000
Indian Point	12,000	Depew Recreation Site	810,000
Milford Beach	1,267,000	Van Campens Glen	133,000
Roberts Lane	8,000	Rivers Bend	466,000
Peirce House (site work)	31,000	Blue Mountain Lakes	159,000
Weygadt	5,219,000	Flatbrook Valley Overlook	57,000
Kittatinny Point	719,000	Buttermilk Falls	407,000
Copper Mine Inn	911,000*	NJ District Office	83,000
Poxono	12,000	Walpack Valley Environmental	
Hamilton	91,000	Education Center	237,000
Watergate	668,000	Walpack Center	1,660,000*
Millbrook Village	1,638,000	Thunder Mountain	742,000
Stevens Point	93,000	Peters Valley	692,000*
Peters	174,000	Sandyston Beach	2,711,000
Smith Ferry	64,000	Kettle Holes Campground	1,461,000*
Buck	122,000	Old Mine Road Youth Hostel	29,000*
Long Pine Lake	4,860,000*	Neldon-Roberts Schoolhouse	30,000
Crater Lake	71,000		
Fort John	94,000	Subtotal:	
Sandyston Canoe Campsites	107,000	National Park Service--	
Namanock	275,000	Net Development Cost	\$10,910,000
Minisink	64,000	Indirect Cost**	6,110,000
White Brook	64,000		<u>\$17,020,000</u>
US 206 NRA Entrance	50,000	Concessioner--	
Millville	161,000	Net Development Cost	\$ 4,042,000
Millville Access	182,000	Indirect Cost**	2,264,000
Quicks Island	64,000		<u>\$ 6,306,000</u>
Subtotal:		Total--Phase 2 Gross Cost	\$23,326,000
National Park Service--		Total (Phases 1 and 2)	
Net Development Cost	\$16,213,000	National Park Service--	
Indirect Cost**	9,079,000	Net Development Cost	\$27,123,000
	<u>\$25,292,000</u>	Indirect Cost**	15,189,000
Concessioner--			<u>\$42,312,000</u>
Net Development Cost	\$ 6,332,000	Concessioner--	
Indirect Cost**	3,546,000	Net Development Cost	\$10,374,000
	<u>\$ 9,878,000</u>	Indirect Cost**	5,810,000
Total--Phase 1 Gross Cost	\$35,170,000		<u>\$16,184,000</u>
		Grand Total	\$58,496,000

\*A site that could be operated under a concession contract and would require private sector capital.

\*\*Indirect costs cover surveys, design services, preparation of construction documents, contract award and administration, construction supervision, etc.

Table H-2: Road and Trail Costs  
(1985 dollars)

Roads under Federal Jurisdiction

Year-Round Paved Roads	
Reconstruction	\$ 6,000,000
Resurfacing	11,960,000
Year-Round Unpaved Roads	
Additional base	452,000
Maintenance	12,000
Seasonal Paved Roads	
Reconstruction	253,000
Resurfacing	570,000
Seasonal Unpaved Roads	
Additional base	220,000
Regrading	21,000
Restricted Use Roads	
Resurfacing of paved roads	102,000
Maintenance of unpaved roads	81,000
Closed Roads	
Revegetation	262,000
Scarification	131,000
Blocking	<u>13,000</u>
Net Cost	\$20,077,000
Indirect Cost**	<u>11,243,000</u>
Total Gross Cost	\$31,320,000

Trails

Rehabilitation of Existing Trails	\$ 18,000
New Trail Development	<u>5,943,000*</u>
Net Cost	\$5,961,000
Indirect Cost**	<u>3,338,000</u>
Total Gross Cost	\$9,299,000

\*This estimate does not reflect how much would be underwritten by private interest groups.

\*\*Indirect costs cover surveys, design services, preparation of construction documents, contract award and administration, construction supervision, etc.

Table H-3: Historic Structure Cost Estimates

Lease 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
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
Neldon-Roberts Schoolhouse	90,000
Peters Valley Historic District	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 Historic District	<u>650,000</u>
Net Cost	\$4,950,000
Indirect Cost*	<u>2,772,000</u>
Gross Cost	\$7,722,000

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
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
Totts Gap Complex	185,000
Westbrook-Bell House	170,000
William Ennis House	<u>170,000</u>
Net Cost	\$2,468,500
Indirect Cost*	<u>1,382,500</u>
Gross Cost	\$3,851,000

Note: See table 3 in the text for priorities; see appendix F for descriptions of work and for properties not listed.

\*Indirect costs cover surveys, design services, preparation of construction documents, contract award and administration, construction supervision, etc.

Table H-4: Annual Operating Costs  
(1985 dollars)

Management	\$ 470,100
Administration	200,500
Visitor Services and Resource Management	340,836
Visitor Management and Resource Protection	1,997,275
Roads/Trails/Grounds Maintenance	2,354,335*
Buildings/Utilities/Historic Structure Maintenance	<u>728,065</u>
Total	\$6,091,111

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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  
 Agricultural use permit monitoring  
 Pest 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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