

Final Environmental Impact Statement
UPPER DELAWARE
SCENIC AND RECREATIONAL RIVER
New York and Pennsylvania

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March 26, 1987

Prepared by National Park Service, Mid-Atlantic Regional Office, Division of Park and Resource Planning; in consultation with the State of New York, Commonwealth of Pennsylvania, Conference of Upper Delaware Townships, Delaware River Basin Commission, Citizens Advisory Council, and other public and private interests.

Summary: Final Environmental Impact Statement for the Proposed River Management Plan - Upper Delaware Scenic and Recreational River, New York and Pennsylvania

Responsible Agency: U.S. Department of the Interior, National Park Service, Mid-Atlantic Regional Office

Abstract: The Conference of Upper Delaware Townships in cooperation with the National Park Service, Commonwealth of Pennsylvania, the State of New York, the Delaware River Basin Commission, and the Citizens Advisory Council has developed a proposed River Management Plan for the Upper Delaware Scenic and Recreational River. The proposed plan recommends a revised river corridor boundary, revised Land and Water Use Guidelines, the formation of an Upper Delaware Council to coordinate implementation of the plan, and procedures for river management; describes how the enabling legislation will be carried out; and identifies the roles of cooperating agencies during the next 20 years. The plan requires the approval of the Secretary of the Interior.

Alternatives: The final EIS assesses the environmental impacts of three alternatives:

(1) Implement the River Management Plan and Guidelines (Proposed Action): Provides protection and enhancement of valley resources-- sport fishery, bald eagle, water quality, scenic, cultural, economic and recreational resources. The plan would be accomplished by the coordinated efforts of local, State and Federal governments and the Delaware River Basin Commission through the use of existing authorities. The existing river corridor boundary would be reduced from the present 86,000 acres to

55,574.5 acres; 124 acres are recommended for acquisition by the National Park Service for recreation use and visitor management purposes.

(2) Maintain Status Quo (No Action): No River Management Plan and the continuation of the National Park Service interim authorities. Provides a very reduced level of protection and enhancement of key resource values; would result in long-term degradation of those values. The present boundary of 86,000 acres would remain.

(3) Implement a Modified River Management Plan: The National Park Service would modify and adopt the River Management Plan. Under the modified plan, the National Park Service would assume a more active management role with no council. Provides a reduced level of protection of key resource values when compared to the proposed plan; more protection and enhancement than the status quo alternative. Selected areas threatened by development inconsistent with the Plan would be acquired by the National Park Service, up to a limit of 7340 acres, providing protection of selected, critical resource values through land acquisition. The river corridor boundary would be reduced to 55,574.5 acres, 124 acres would be acquired by the National Park Service for recreation uses and visitor management.

The River Management Plan has been controversial within the Upper Delaware valley. The issues of controversy deal with land use regulations such as zoning; the authorities of the various levels of government, and particularly the Federal government; Federal acquisition; the location of the river corridor boundary; recreation use management; and the economic impacts on land values. The Plan and Guidelines present findings and/or propose actions with respect to these issues.

FINAL
ENVIRONMENTAL IMPACT STATEMENT
UPPER DELAWARE
SCENIC AND RECREATIONAL RIVER
NEW YORK AND PENNSYLVANIA

Prepared by National Park Service, Mid-Atlantic Regional Office, Division of Park and Resource Planning; in consultation with the State of New York, Commonwealth of Pennsylvania, Conference of Upper Delaware Townships, Delaware River Basin Commission, Citizens Advisory Council, and other public and private interests.

February 1987

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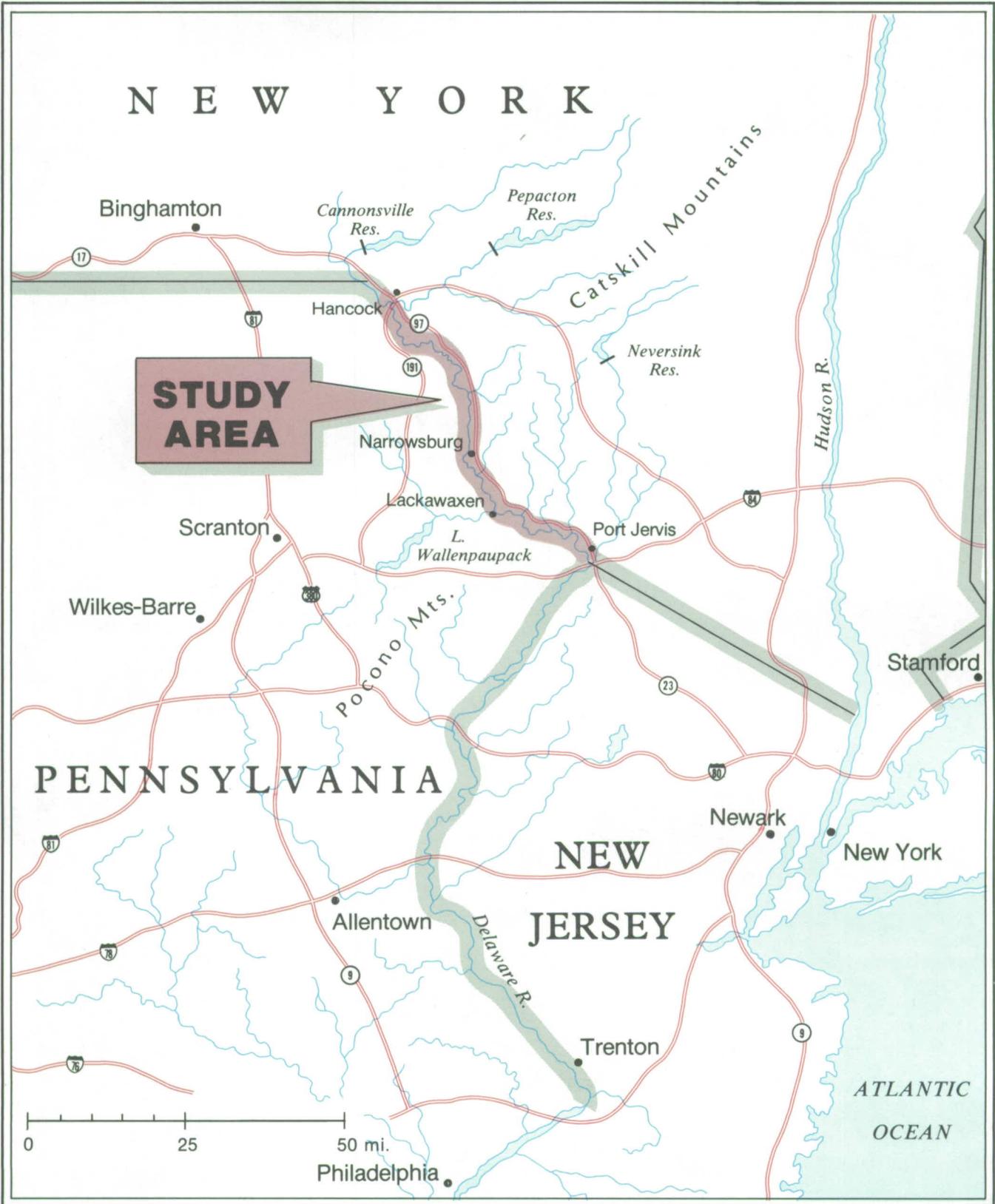
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UPPER DELAWARE SCENIC AND RECREATIONAL RIVER

The Delaware River Region



Prepared by National Park Service, Mid-Atlantic Region



CHAPTER I - PURPOSE AND NEED

A. Purpose

The Upper Delaware legislation (P.L. 95-625) Section 704 requires that the Secretary of the Interior in cooperation with the Delaware River Basin Commission, the Citizen's Advisory Council, the Commonwealth of Pennsylvania, the State of New York and their concerned political subdivisions develop and approve a river management plan. The purpose of the proposed Upper Delaware River Management Plan is to set forth how the resources of the Upper Delaware River corridor will be managed, through cooperative federal, state, local and private efforts, and to provide as broad a range of land and water uses as is compatible with conserving outstanding resource values. If approved, this plan will guide the future actions of the National Park Service (NPS) and other agencies and units of government in the management of the river and adjacent land resources for the next 20 years.

B. Need

The Upper Delaware River is one of only four river segments in the Northeastern U.S. to have been designated as a component of the National Wild and Scenic Rivers System. To receive such recognition, a river and its surrounding environment must be free-flowing and relatively undeveloped, and must possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic and cultural resources, or other similar values. Designated rivers, by law, are to be preserved in free-flowing condition and protected for the benefit and enjoyment of present and future generations. The Delaware River is the only major river in the Northeastern United States that remains undammed along its main stem, although its flow is controlled, in part, by several tributary dams.

The high water quality of the Upper Delaware, in part attributable to the rural, sparsely settled nature of the region, is also an important

resource, which has prompted the Pennsylvania Department of Environmental Resources to designate the watershed as a special protection area.

The landscape of the Upper Delaware area is a visually diverse one, characterized by the contrast of farmland and villages on the valley floors with the forested hills that surround the valley. The Delaware River Gorge, which extends north from Matamoras, Pennsylvania, for much of the corridor's length, has been identified by the Pennsylvania Geological Survey as an outstanding scenic geologic feature.

The Upper Delaware provides some of the most important fish habitat in the Northeast, because of its free-flowing nature, high water quality, and cold water releases (from reservoirs on tributaries). The northern segment of the river, between Hancock and Callicoon, is unique due to its cold water temperatures, and offers some of the finest trout fishing in the Northeast. The Upper Delaware is currently one of only two natural shad rivers (the Hudson River is the other) from Maine to West Virginia that is sufficiently free of man-made barriers and industrial pollution to allow passage of shad to their upper reach spawning habitats.

Recreational opportunities are abundant in the Upper Delaware area. The river is one of the most outstanding canoeing rivers in the Northeast, combining consistent water flows, high scenic quality, and proximity to metropolitan areas. Because of its combination of diverse habitats, the area also offers excellent recreational fishing and hunting opportunities. Many also visit the area for sightseeing, swimming, and other activities.

This rural area is readily accessible to approximately 31,750,000 people who live within a 150-mile radius of the river. These outstanding resource values, and the steadily increasing recreational use of the river, are among the reasons the U.S. Congress designated 73.4 miles of the Upper Delaware River as part of the National Wild and Scenic Rivers System

through the National Parks and Recreation Act of 1978 (P.L. 95-625). The Upper Delaware legislation requires that the river management plan shall set forth:

- (A) a map showing detailed final landward boundaries, the upper and lower termini of the corridor, and the specific segments of the river classified as scenic and recreational, to be administered in accordance with such classifications;
- (B) a program for the management of existing and future land and water use, including the application of available management techniques;
- (C) an analysis of the economic and environmental costs and benefits of implementing the management plan, including any impact of the plan upon the revenues and costs of local government;
- (D) a program providing for coordinated implementation and administration of the plan with proposed assignment of responsibilities to the appropriate governmental unit at the Federal, regional, State and local levels; and
- (E) such other recommendations or provisions as shall be deemed appropriate to carry out the purposes of Section 704(c)(2) of the Act.

C. Legislative and Planning History

The Upper Delaware River was one of the original twenty-seven rivers designated for study upon passage of the Wild and Scenic Rivers Act by Congress in 1968 (P.L. 90-542, 16 U.S.C. 1271). A federal study team led by the Bureau of Outdoor Recreation (BOR) began its evaluations in 1969, and a draft river qualification study and draft environmental impact statement was released in February 1974. Concern over the level of federal land acquisition arose during this time, which resulted in a substantial redefinition of the study's recommendations concerning the boundary, land acquisition, and local involvement in the river's management. Further drafts were produced in October 1974, before a river study and a final environmental impact statement were released in July 1976. The final study and statement attempted to resolve these concerns by recommending a wider

boundary and increased reliance on the use of local land use controls for conservation instead of federal acquisition.

A proposal for designation as a National Scenic and Recreational River was included in a Presidential environmental message to Congress dated May 10, 1977. The proposed designation was the subject of Congressional hearings during 1977 and 1978. A 73.4 mile segment of the river was added to the Wild and Scenic Rivers System through the National Parks and Recreation Act of 1978 (P.L. 95-625).

The Upper Delaware legislation specifies that the Secretary of the Interior implement interim management during the time that a River Management Plan is being written. The National Park Service, the Secretary's designee, began interim management in 1979. An intergovernmental planning team was established in June 1980 to begin preparation of the guidelines and management plan.

General Land and Water Use Guidelines were published in the Federal Register effective October 13, 1981. A draft River Management Plan and Environmental Impact Statement were circulated for review in October 1982, and public hearings were subsequently held.

The hearings and comments on the plan were highly critical of the proposal, resulting in substantial revisions of the draft. This revised draft management plan and environmental impact statement were circulated for review in October 1983. Local opposition to the plan grew throughout this period, and a series of locally sponsored public meetings were held in the early months of 1984. The issues and concerns generated at these meetings caused the Conference of Upper Delaware Townships (COUP), an ad hoc association of the river towns, to request that a new draft plan be prepared which would be more sensitive to local concerns. The National

Park Service agreed. Work on the new draft plan under the direction of COUP began in August 1984.

The draft River Management Plan was prepared cooperatively by COUP, the National Park Service, the State of New York and the Commonwealth of Pennsylvania, the Delaware River Basin Commission, the Upper Delaware Citizen's Advisory Council and other public and private interests. COUP formed three committees - Plan Oversight, Land Use Guidelines, and Water Use Guidelines - and hired consultants to assist in the preparation of the proposed plan. The membership of these committees represented a broad range of local landowners, commercial interests, local, state, regional and federal governmental agencies, as well as local and national conservation and recreation organizations.

A draft plan was released for public review in January, 1986; the draft EIS was released in April, 1986. Four public hearings were held on both draft documents in June, 1986.

The proposed final plan was prepared by a Plan Revision Committee consisting of representatives from river towns, the States of New York and Pennsylvania, the Delaware River Basin Commission, Citizens Advisory Council, and the National Park Service. The committee reviewed and analyzed all public comments received on the draft plan and, based upon those comments, prepared the proposed final River Management Plan.

This EIS will evaluate the proposed plan, along with other alternatives, for potential impacts on the natural, cultural and economic resources of the area. Chapter V provides additional information about the process used to develop and evaluate the plan and alternatives.

CHAPTER II - ALTERNATIVES, INCLUDING THE PROPOSED ACTION

A. Introduction

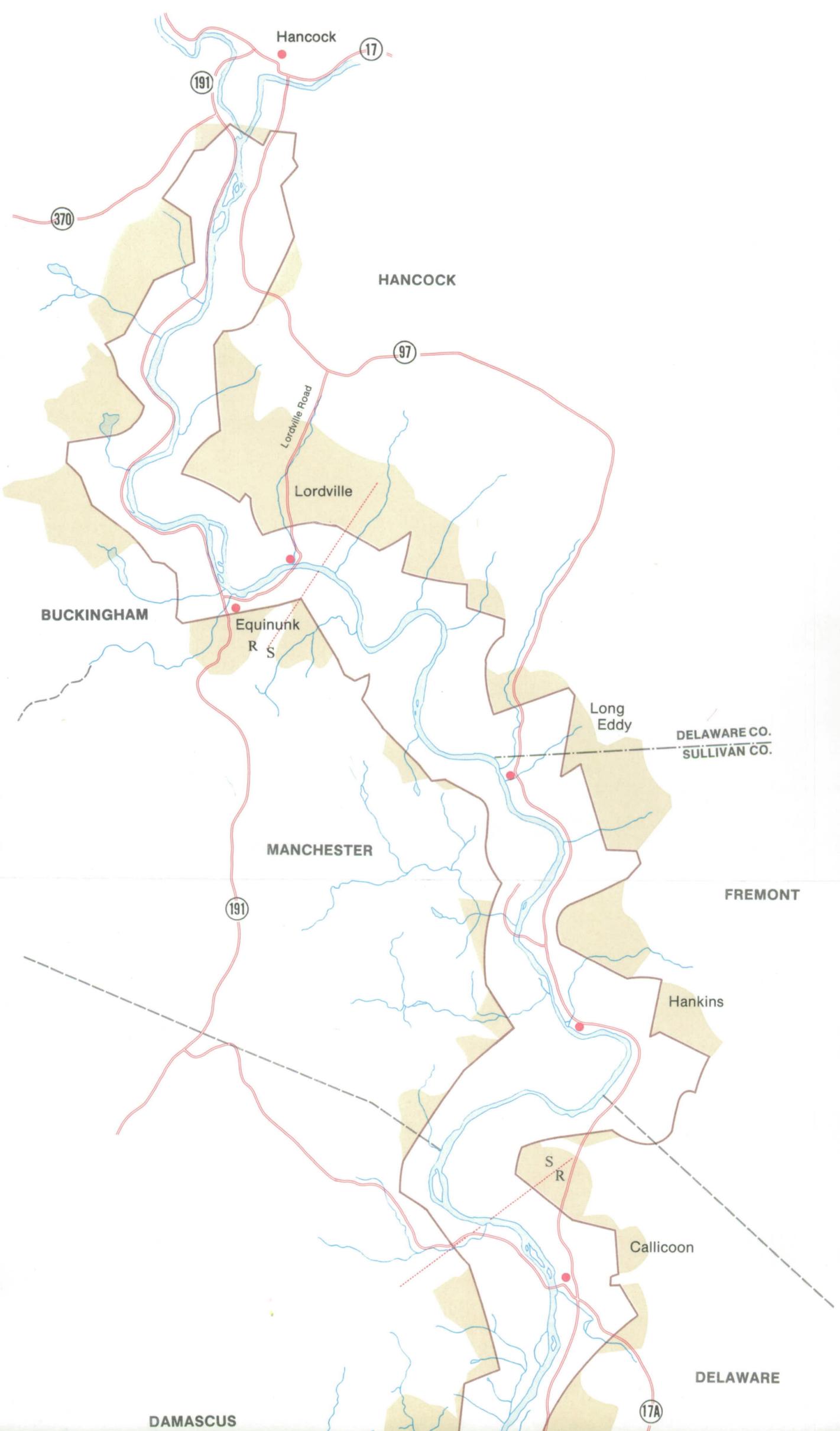
This section of the EIS describes the proposed action and two alternatives, and then summarizes the environmental consequences of each. The proposed action (Alternative 1) involves approval of the proposed River Management Plan by the Secretary of the Interior and implementation of the Plan by an intergovernmental council and its individual members. Alternative 2 involves continuation of current National Park Service interim management for the river without a Management Plan. Alternative 3 involves approval by the Secretary of a modified River Management Plan having no intergovernmental council and assigning to the National Park Service additional management responsibilities. Possible alternatives considered but not selected for analysis are discussed in Chapter V. A summary of the major alternatives can be found at the end of Section B.

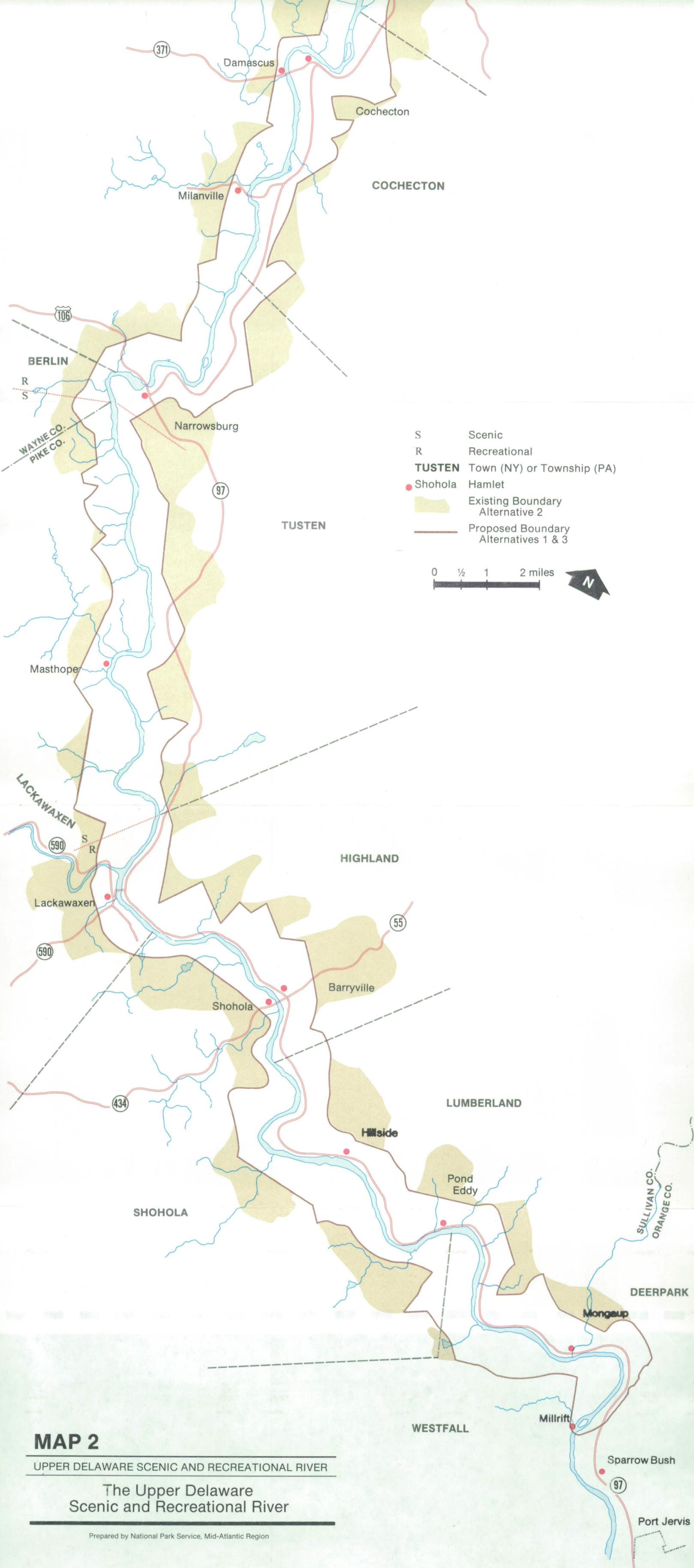
B. Description of Alternatives

1. **Alternative 1: Implement the River Management Plan and Guidelines (Proposed Action)**

Under the proposed action, the River Management Plan (RMP) and revised Land and Water Use Guidelines would be implemented by an Upper Delaware Council, acting through its individual members. The Council would be composed of representatives from each river corridor town, the National Park Service, the State of New York, the Commonwealth of Pennsylvania, the Citizens Advisory Council, and the Delaware River Basin Commission. The RMP and the Guidelines assign responsibilities to each of the above parties. The revised Guidelines would replace the existing Guidelines issued by the Secretary in 1981.

For the purpose of the environmental analysis contained in this EIS (see Chapter IV), it is estimated that over the course of the planning period twelve of the fifteen river corridor towns would manage their river resources and develop and adopt land use regulations consistent with the





MAP 2

UPPER DELAWARE SCENIC AND RECREATIONAL RIVER

The Upper Delaware Scenic and Recreational River

Prepared by National Park Service, Mid-Atlantic Region

RMP and the Guidelines. This number was derived by assuming that those towns which currently have local zoning and which have sought financial assistance (under the provisions of Section 704(e) of the Upper Delaware legislation) for developing local zoning would manage their river resources in a manner consistent with the RMP and Guidelines. It is estimated that three towns would not manage their river corridor resources in a manner consistent with the RMP and Guidelines.

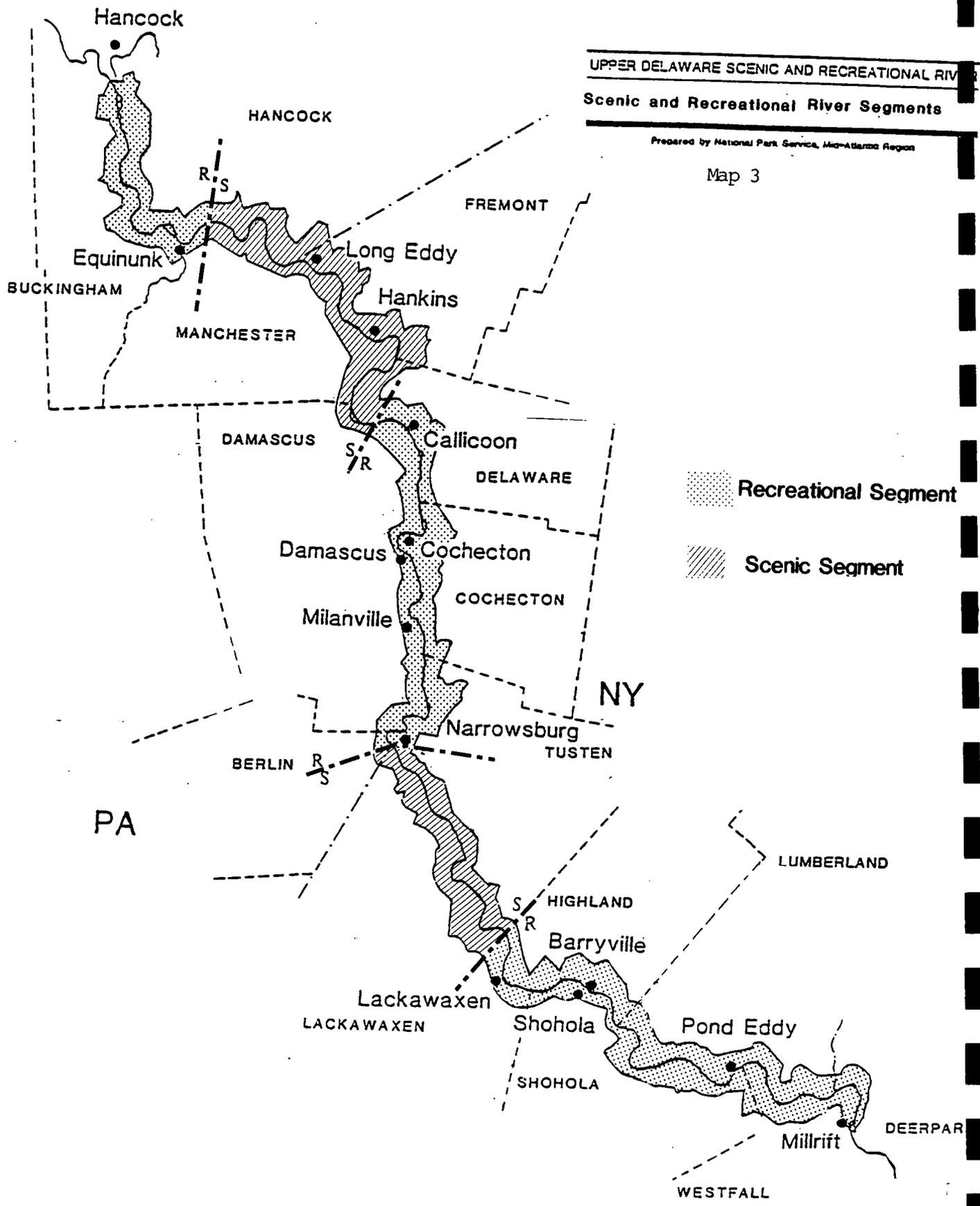
River Corridor Boundary

The northern and southern termini for the river corridor include the segment of the Upper Delaware River designated in the 1978 legislation, i.e., from the confluence of the East and West branches below Hancock, New York, to the existing railroad bridge immediately downstream of Cherry Island in the vicinity of Sparrow Bush, New York for a total river corridor length of 73.4 miles. Under this alternative, the landward boundary would encompass a total of 55,574.5 acres, and would include those adjacent lands from which runoff drains directly into the Delaware River. In addition, the boundary line would be drawn across tributary valleys at the nearest recognizable high points closest to each stream, which may be ridgelines, peaks, or topographic promontories (see Map 2).

River Classifications

Three recreational and two scenic segments were established in the 1978 legislation (see Map 3). Those segments would not be changed under this alternative. They are, from north to south:

- (1) Recreational: From the northern terminus to 1/2 mile south of the Lordville Bridge (11 miles, 6413 acres).
- (2) Scenic: From 1/2 mile south of the Lordville Bridge to a point just upstream of Callicoon, NY (16 miles, 12,240 acres).
- (3) Recreational: From a point just upstream of Callicoon, New York to a point just downstream of Narrowsburg, New York (15 miles, 13,971 acres).



- (4) Scenic: From a point just downstream of Narrowsburg, New York to the Tusten-Highland, New York, boundary (9.4 miles, 7656.5 acres).
- (5) Recreational: From the Tusten-Highland, New York, boundary to the southern terminus (22 miles, 15,294 acres).

These segments were defined based on existing types and intensity of land use and development within the river corridor, in accordance with the definitions for scenic and recreational segments in the 1968 Scenic Rivers Act.

The RMP also identifies twenty hamlet areas (see map 2). Levels and types of development for the scenic and recreational segments, as well as for hamlet areas, have been defined in the Land and Water Use Guidelines, including compatible, conditional and incompatible uses.

Resource Conservation

The Land and Water Use Guidelines, which are considered to be an integral part of the RMP, identify actions which would be taken by local governments to protect and enhance the natural, cultural, economic, and social resources of the river corridor.

The Land and Water Use Guidelines contain six major principles for resource protection, a series of objectives under each principle, and a list of alternative actions to be taken by local governments to meet the objectives and principles.

The six principles are:

- A. Maintain the high water quality found in the Upper Delaware River.
- B. Provide for the protection of the health, safety, and welfare of visitors and residents while also providing for the protection and preservation of natural resources.
- C. Provide for recreational and other public uses while protecting the Upper Delaware as a natural resource.

- D. Provide for the continuation of agricultural and forestry uses.
- E. Conserve river area resources.
- F. Maintain existing patterns of land use and ownership.

For each of the above principles, the Guidelines set out one or more objectives. Among the objectives which would have the greatest effect on the river corridor environment are:

1. Limit soil erosion and sedimentation from construction on steep slopes.
2. Maintain natural cover to control stormwater runoff, limit flooding, protect groundwater supplies and provide erosion control.
3. Protect special erosion hazard areas along riverbanks.
4. Protect special erosion hazard areas along ridgelines.
5. Limit pollution problems from septic systems located on poor soils.
6. Provide for light and air and maintain an uncluttered landscape through: adequate separation of principal structures, limiting the height of principal structures, and requiring adequate setbacks of principal structures from highways.
7. Prevent unnecessary sign proliferation, particularly on the riverfront.
8. Encourage both private and public agencies that are recreational providers to locate intensive use recreation facilities outside of undeveloped or "Scenic" segments of the river corridor.
9. Provide for the use of sound timber practices within the corridor.
10. Ensure that traditional resource extraction operations are permitted, but consistent with the protection of the public health, safety, and welfare.
11. Limit housing density and intensity of uses with consideration to the existing character of the river corridor.

The River Management Plan and Guidelines identify a series of actions to be taken by the various levels of government--local townships, the Delaware River Basin Commission, the States, and Federal agencies--to meet the principles and objectives of the RMP.

All of these actions at the local, State, and Federal levels will occur through the use and implementation of existing laws and authorities of the different levels of governments. Existing land uses would not be affected. The Upper Delaware Council would serve as an intergovernmental coordination body to assist and advise the towns, the States, and the Federal government in the implementation of the Plan and Guidelines.

Those actions contained in the Guidelines and River Management Plan, and proposed to be taken by local governments unless otherwise noted, that would have significant environmental consequences include, by issue topic:

I. Sport Fishery Management Actions:

Significant fisheries include trout, bass and shad, and to a lesser extent, walleye. The Plan and Guidelines propose actions directed at conserving and protecting the habitat, such as spawning areas and nurseries, of these species. Actions identified under other resource topics, particularly actions to protect water quality, would also serve to protect fish habitat.

- (a) Prohibit identified incompatible uses,* including marinas, major surface mining operations, power generating plants, landfills, heavy industrial uses (reference Schedule of Compatible, Conditional and Incompatible Land Uses, page 134 of RMP) which could negatively impact fish habitat.

*Throughout the EIS, this reference applies only to new such uses. All existing land uses, under the Plan, may continue.

- (b) Prevent erosion and sedimentation by providing for *conditional use permit review for construction within 100 feet of the river, or involving slopes over 15 percent.
- (c) Prevent erosion and sedimentation by limiting clearing for building purposes to 20 percent of lot area with reduction to 10 percent for slopes over 15 percent grade or requiring slopes of less than 16 percent in grade for the location of all principal structures, with exceptions for agriculture and forestry.
- (d) Prevent erosion and sedimentation by providing for sound timber management practices including the removal of only individual selected trees within 50 feet of corridor streams, prohibiting clear cutting of over two acres or making it a conditional use subject to a professional foresters review (with exceptions for agricultural and wildlife management) and establishment of regulations requiring soil stabilization.
- (e) Pursuant to Section 7(a) of the Wild and Scenic Rivers Act, Federal agencies will not license any water resource project which would have direct and adverse effects on fishery resources.
- (f) Continuation of existing state trout stocking programs on the tributaries, fishery research undertaken by the States and Delaware River Basin Fish and Wildlife Management Cooperative, and joint state management of fishery resources, including the purchase of fishing access.

*Conditional use is defined here and elsewhere in the text as a use generally appropriate for a zoning district but allowed, by permit, only after review by local officials with attachment of conditions to ensure the protection of resource values and/or the elimination or mitigation of adverse impacts. In Pennsylvania, such a land use is referred, specifically, as subject to "conditional use review;" in New York, the term is "special use permit review" or "site plan review." Throughout this EIS, the term "conditional use," is used generically to apply to both states.

II. Water Quality Management Actions:

Surface Water Actions:

Water quality actions are directed at protecting the existing quality of surface and ground water by eliminating or mitigating the adverse impacts from runoff, contamination, or other types of pollutants.

- (a) Prohibit identified incompatible land uses which could negatively impact surface water quality, including heavy industrial uses, landfills, major mining operations, junk yards.
- (b) Prevent erosion by providing for conditional use permit review for construction within 100 feet of the river, or involving slopes over 15 percent.
- (c) Prevent erosion by limiting clearing for building purposes to 20 percent of the lot area with reduction to 10 percent for slopes over 15 percent grade or requiring slopes of less than 16 percent in grade for the location of all principal structures, with exceptions for agriculture and forestry.
- (d) Prevent erosion by providing for sound timber management practices, including the removal of only individual selected trees within 50 feet of corridor streams, prohibiting clear cutting of over two acres or making it a conditional use subject to a professional forester's review and establishment of regulations requiring soil stabilization.
- (e) Prevent surface water contamination from livestock waste disposal by prohibiting intensive livestock operations (feed lots) or making such operations conditional uses to assure adequate control of wastes.
- (f) In New York State, continued enforcement of the existing Stream Protection Act requiring a State permit prior to modifying or disturbing the bed or banks of a protected stream.
- (g) In Pennsylvania, continued enforcement of the existing Clean Streams Act to control erosion and sedimentation.

Ground Water Actions

- (a) Limit groundwater pollution from new septic systems by requiring 2 acre minimum lot size outside of hamlets.
- (b) Prohibit identified incompatible uses which would negatively impact ground water quality, including subsurface mining, new solid and toxic waste disposal sites, major surface mining operations, heavy industrial uses, landfills.
- (c) In New York, continued enforcement of the existing Realty Subdivision Law requiring any subdivision of 5 or more parcels that are 5 or less acres in size to have a plan for adequate water facilities.
- (d) In Pennsylvania, continued enforcement of the existing Sewage Facilities Act requiring municipal plans for sewage services.

III. Scenic Resource Management Actions:

The corridor is presently rural in character, with expanses of forest and occasional farms and settlements. The RMP and Guidelines include the following actions that relate to the scenic character of the corridor:

- (a) Prohibit identified incompatible uses including marinas, major surface mining operations, power generating plants, heavy industrial uses (reference Schedule of Compatible, Conditional and Incompatible Land Uses, page 134 of RMP).
- (b) Make construction within 100 feet of river subject to conditional use permits.
- (c) Require slopes of less than 16 percent in grade for the location of all principal structures or requiring conditional use review for projects on land over 15 percent in grade.
- (d) Require construction on ridgelines not to exceed the height of the treeline.

In addition to the major items noted above, the following also apply to scenic resources:

- (e) Require two acre minimum lot size outside of hamlets.
- (f) Require 150 feet minimum separation of principal structures along the river.
- (g) Require minimum lot width (150 feet), building set back (35 feet) and front yard (35 feet).
- (h) Limit building height to 35 feet, with exceptions for farm structures.
- (i) Prevent unnecessary sign proliferation by prohibiting off-premises advertising signs, establishing design standards to ensure that signs harmonize with the surrounding environment, and/or establishing size criteria. This will reduce the potential number and size of signs per property and/or riverfrontage.
- (j) Prohibit clearcutting of over two acres or make clearcutting a conditional use subject to a professional forester's review; allow removal of only individual selected trees within 50 feet of corridor waterways.
- (k) Limit maximum lot coverage (buildings, pavement, etc.) to 10 percent and/or limit clearing for building purposes to 20 percent of the lot area with reduction to 10 percent for slopes over 15 percent in grade.
- (l) Pursuant to Section 7(a) of the Wild and Scenic Rivers Act Federal agencies will not license any water resource project affecting the river.

IV. River Recreational Use Management Actions

The National Park Service has been managing river recreation use and providing information to visitors along the Upper Delaware since 1980. Under the proposed action, the National Park Service would continue those actions. They are:

- (a) Operate: two ranger stations for visitor contact and management, five informational kiosks, a visitor contact facility/bookstore,

Alternatives: 1

- eight public river access sites, and eleven emergency access sites (several of the access sites also serve as emergency access sites; several are operated by permit or lease from the landowner).
- (b) Provide law enforcement on the river itself by enforcing 36 CFR and existing State fishing regulations: 36 CFR is that part of the Code of Federal Regulations that provides rules in areas administered by the National Park Service. For the Upper Delaware, 36 CFR applies only to the river itself, and lands owned or leased by the National Park Service.
 - (c) During peak season (Memorial Day to Labor Day) patrol the river from Callicoon to southern terminus by boat five times per day on Saturday and Sunday and two times per week day, Monday through Friday. From approximately May 1 to Memorial Day and from Labor Day through September patrol two times per day on Saturday and Sunday.
 - (d) Provide safety information to visitors at visitor contact areas, ranger stations, kiosks and river access sites.
 - (e) Complete reconstruction of the Roebling Bridge, and open it to vehicular traffic.

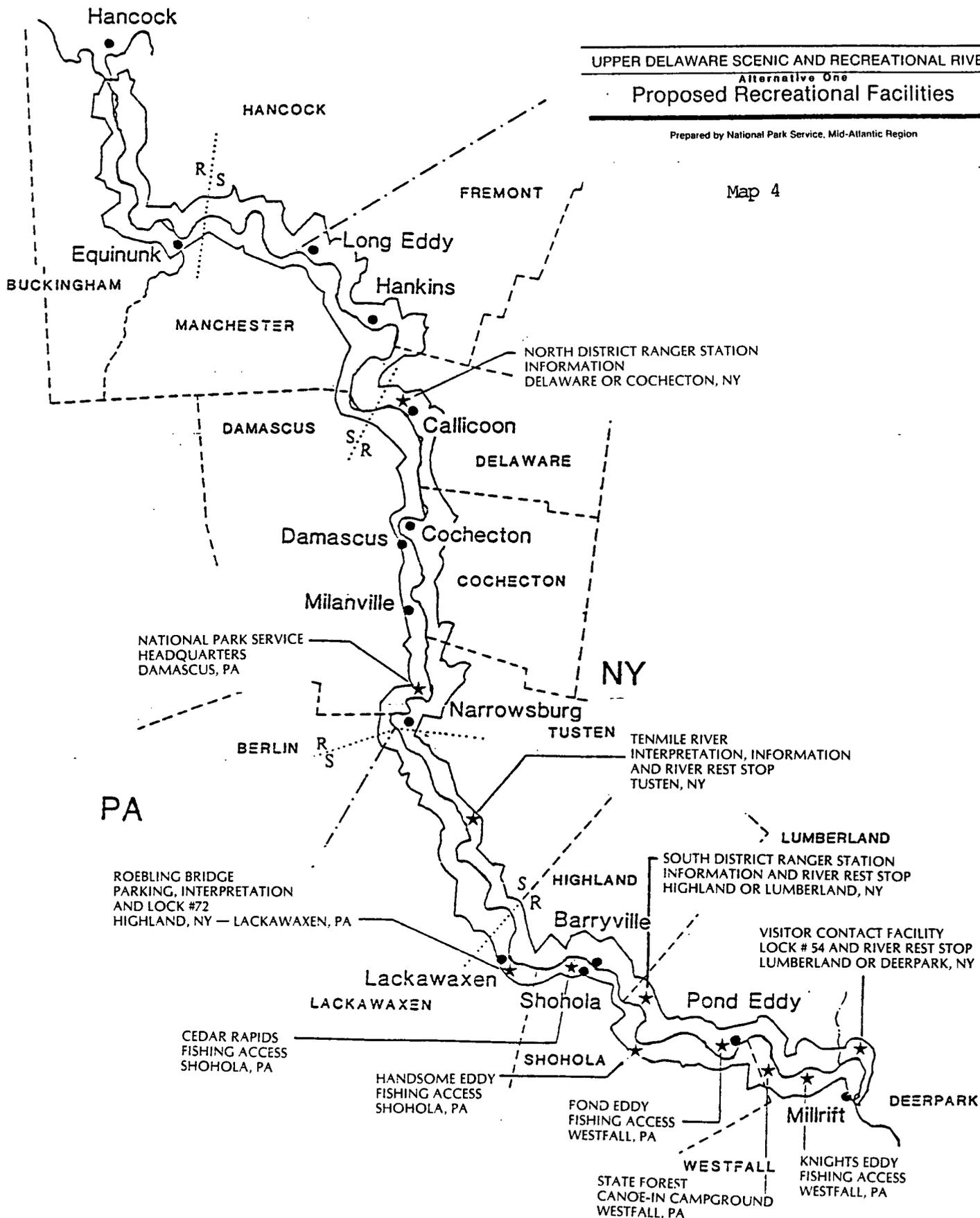
The National Park Service also provides funds to local towns for solid waste removal and law enforcement. Under this alternative funds would continue to be made available for these services and for river rescue services.

In addition to continuing existing river recreation management actions (see Chapter III D for further details), the National Park Service, and other levels of government would acquire approximately 124 acres of land, on a willing seller-willing buyer basis, for visitor use and river management purposes. Facilities would be developed, including an NPS visitor contact/interpretation center, two NPS district ranger stations,

UPPER DELAWARE SCENIC AND RECREATIONAL RIVER
 Alternative One
 Proposed Recreational Facilities

Prepared by National Park Service, Mid-Atlantic Region

Map 4



three NPS interpretation sites, three NPS river rest stops, two NPS parking areas at the Roebing Bridge, Zane Grey House, and one Commonwealth of Pennsylvania canoe-in campground. The location and approximate acreage of these facilities are as follows:

<u>Site</u>	<u>Approx. Location</u>	<u>Approx. Acres</u>
North District Ranger Station	Delaware or Cochection	3-5
Archeological Site at Ten Mile River	Tusten	40
River Rest Stop at Ten Mile River	Tusten	part of above
NY Parking for Roebing Bridge and Emergency Access	Highland	1-2
Zane Grey House	Lackawaxen	1-2
PA Parking for Roebing Bridge and Emergency Access	Lackawaxen	1-2
D&H Canal Lock #72	Highland	1-2
D&H Canal Lock #54	Deerpark (included in visitor contact facility)	
South District Ranger Station	Lumberland or Highland	3-5
River Rest Stop at South District Ranger Station	Lumberland or Highland	included in above
Visitor Contact Facility and River Rest Stop	Deerpark	70
*Knights Eddy Fishing Access	Knights Eddy	*2
*Pond Eddy Fishing Access	Pond Eddy	*2
*Cedar Rapids Fishing Access	Cedar Rapids	*2
*Handsome Eddy Fishing Access	Handsome Eddy	*2
Commonwealth of Pennsylvania Canoe-In Campground	Westfall on State Forest land	2

*In addition, there would also be four 2-acre fishing access sites at the locations indicated. The preferred providers of these fishing access sites are, in order: private interests, townships, counties, states or, as a last resort, the National Park Service. For this reason, they are not listed as proposed actions of the Service. However, they are otherwise included in appropriate sections of this EIS.

The planned public access areas are each 5-7 acres in size and include a parking lot, comfort station, phone, map, trash containers, boat launch and limited picnicking. Each river rest stop is about 3 acres in size, can be reached only by watercraft and includes a map, trash container and comfort station. Fishing access points are about 2 acres in size with limited off-road parking.

The primary providers of river boating opportunities would continue to be the canoe liveries. Watercraft rental businesses would be authorized to operate on the river through commercial use licenses issued by the National Park Service. River use safety standards and procedures to ensure user safety are defined in the license.

The proposed plan does not provide for any limitations on river use at this time. There is a multi-year recreation use study underway which would provide information to the Upper Delaware Council to help determine whether existing or increased river use would degrade environmental quality, create safety hazards for river users or result in violations of the property rights of riparian landowners. Based on this study and on monitoring the river use, appropriate measures would be recommended by the Council. Options might include establishing water use performance guidelines for water recreational uses and establishing voluntary limits on numbers of commercial watercraft. If needed, more stringent options such as a locally-administered registration system or a permit system that allocates use would be considered by the Council. It is not considered likely that the more stringent options will be exercised because of the projected levels of use.

V. Cultural Resources Management Actions:

Historic and archeological resources that are in private ownership would remain in private ownership. NPS would provide technical assistance to property owners, local governments, and historic preservation organizations.

Historic Resources

- a. Upon request, states will provide information and assistance in the management of historic sites and resource inventories.
- b. Upon request State Historic Preservation Officers will assist in the identification of properties eligible for the National Register of Historic Places.
- c. The National Park Service would
 - (1) Upon request provide assistance to local governments on historic preservation techniques.
 - (2) Upon request provide technical assistance to property owners on historic preservation.
 - (3) Assure consistency of other Federal agency actions with the National Historic Preservation Act.
 - (4) Publish or assist with the publication of a guide to the cultural resources of the river corridor; and provide public programs to encourage appreciation of historic resources.
 - (5) Upon request provide funding for historic studies and planning.

Key sites would be managed as follows:

<u>Site</u>	<u>Ownership</u>	<u>Management</u>
1. Roebling Bridge (Delaware Aqueduct)	NPS	Interpretation
2. Delaware & Hudson Canal Locks 72 and 54	NPS	Interpretation
3. Zane Grey House	NPS	Interpretation/Museum
4. Arlington Hotel	Private	NPS lease of office space for Visitor Contact services
5. Delaware and Hudson Canal	Private	NPS cooperative agreement--Interpretation, public access
6. Congregational Church and graveyard, Barryville	Private	NPS cooperative agreement--Preservation, public access
7. Tusten Settlement Church	Private	NPS cooperative agreement--Preservation, public access
8. St. Joseph's Seminary	U.S. Dept. of Labor	Job Corps information center
9. Callicoon Railroad Depot	Conrail	Adaptive reuse
10. Lackawaxen Aqueduct Abutment	Private	NPS cooperative agreement--Preservation
11. Fort Delaware	Sullivan County	Interpretation/recreation
12. Minisink Battleground	Sullivan County	Interpretation/recreation

Archeological Resources

- a. Upon request, states will provide information and assistance in the management of archeological sites.
- b. Upon request, State Historic Preservation Officers will assist in the identification of sites eligible for the National Register of Historic Places.
- c. The National Park Service will
 - (1) Upon request, provide technical assistance to property owners on protection and preservation
 - (2) Assure consistency of other Federal agencies with the National Historic Preservation Act and other related legislation
 - (3) Upon request, provide funding for studies and planning
 - (4) Acquire and manage the archeological site at Ten Mile River for interpretive purposes.

VI. Land Management Actions

The Plan and Guidelines are also designed, and have as one of their Principles, to insure the continuation of existing patterns and types of traditional land uses in the river corridor. Major actions under this Principle include:

- (a) Establish a minimum lot size of two acres outside of hamlets
- (b) Prohibit incompatible land uses including junkyards, channel modifications, impoundments, landfills, power generating stations, major surface mining operations, heavy industrial uses, major electric lines, new paved four-lane roads and bridges, and major oil or gas transmission lines, waste disposal sites, (reference Schedule of Compatible, Conditional and Incompatible Land Uses, page 134 of RMP).
- (c) Establish regulations to ensure that existing agricultural uses are not made non-conforming in towns by virtue of other regulations adopted to meet the Land and Water Use Guidelines.

As noted, it is estimated that twelve of the fifteen towns will manage the river corridor consistent with the Plan and Guidelines. In the remaining three towns, resource values would not be protected and actions would not be taken at the local level in a manner consistent with the plan. Any clear and direct threats to natural resources in the non-conforming towns would be dealt with through the use of authorities of the State or Federal levels of government, by the private sector, or as a last resort, by the use of the Secretary of the Interior's authority to acquire lands contained in Section 704(e)(4) of the legislation. The council would be involved in the process of reviewing clear and direct threats. The acquisition of any such land is restricted to those towns (assumed to be 3 under this alternative) not in substantial conformance with the Plan and Guidelines and further restricted to those specific parcels with clear and direct threats to resource values. Any lands acquired would be resold, with restrictive covenants in the deed, to prevent the recurrence of the clear and direct threat.

Overall Management

The council would review, coordinate and provide direction for all aspects of the plan implementation. The council also would serve as an inter-governmental body to seek resolution of issues relating to the Upper Delaware.

The council, through a contract with the Secretary of the Interior, would be responsible for review of local plans, laws, and ordinances, and for making recommendations concerning conformance with the RMP and the Guidelines. If the recommendations and actions of the council are consistent with the Plan and Guidelines, the Secretary may accept them. The council would review major proposed developments as well as certain other projects having the potential for adversely impacting river area resources.

Alternatives: 1

The Council would also seek to assure that the actions of State and Federal agencies would be consistent with the Plan and guidelines. It would provide its views and recommendations to other levels of government with respect to proposed actions within the corridor.

The Council would be assisted by the Citizen's Advisory Council, which would continue its present role of encouraging public involvement in planning and management decisions relating to the Upper Delaware.

2. Alternative 2: Maintain Status Quo (No Action)

This alternative describes continuation of current NPS management, with no River Management Plan. It also serves as a baseline for existing conditions, from which the other two alternatives are compared and analyzed in terms of environmental impacts. Adoption of this alternative, however, would result in a failure to conform to the Congressional mandate of the Upper Delaware Special Provisions, which requires the adoption of a River Management Plan (Section 704(c)).

Under this alternative the revised Land and Water Use Guidelines would be adopted by the Secretary and would replace the existing 1981 Guidelines which are currently in effect, in accordance with the provisions of Section 704 which allow the Secretary to adopt revised Guidelines. The 1981 Guidelines are substantially out-of-date and do not accurately reflect existing valleywide conditions and resource protection principles.

For the purpose of the environmental analysis contained in this EIS (see Chapter IV), it was assumed that over the course of the planning period no major modifications to existing local land use regulations would occur.

River Corridor Boundary

The 1978 legislated boundary delineating approximately 86,000 acres and 73.4 miles of river would remain in effect. See Map 2.

River Classifications

Three recreational and two scenic segments were established in the 1978 legislation (see map 3). Those segments would not be changed. They are, from north to south:

- (1) Recreational: From the northern terminus to 1/2 mile south of the Lordville Bridge (11 miles, 12,986 acres)
- (2) Scenic: From 1/2 mile south of the Lordville Bridge to a point just upstream of Callicoon, NY (16 miles, 18,834 acres)
- (3) Recreational: From a point just upstream of Callicoon, New York to a point just downstream of Narrowsburg, New York (15 miles, 17,630 acres)
- (4) Scenic: From a point just downstream of Narrowsburg, New York to the Tusten-Highland, New York, boundary (9.4 miles, 11,008 acres)
- (5) Recreational: From the Tusten-Highland, New York, boundary to the southern terminus (22 miles, 25,542 acres)

These segments were defined based on existing types and intensity of land use and development within the river corridor, in accordance with the definitions for scenic and recreational segments in the 1968 Scenic Rivers Act.

Resource Conservation

Resource conservation actions would occur in those towns and townships which have already adopted laws, ordinances, and regulations to protect and enhance resource values and through existing programs and laws at the State and Federal levels. These existing actions, which would be taken by local governments unless otherwise noted, include:

I. Sport Fishery Management Actions

Several towns* would act, under existing regulations, to conserve and protect the habitat of significant fishes, including trout, bass and shad. Actions taken under other resource topics, particularly actions to protect water quality, would also serve to protect fish habitat.

*"Towns" will be used to refer to New York towns and Pennsylvania townships.

- (a) Pursuant to Section 7(a) of the Wild and Scenic Rivers Act, Federal agencies would not fund, permit or license any water resources projects which would have direct and adverse effects on fishery resources, principally including prohibitions on impoundments, channel modifications, alterations of the shoreline or river-bottom, rip-rapping, etc.
- (b) Clearcutting over two acres would continue to be prohibited in four towns, reducing erosion or sedimentation.
- (c) Erosion and sedimentation would continue to be controlled in five towns by conditional use review of construction within 100 feet of the river; or in seven towns by limiting lot clearance to 10 percent or in five towns by requiring conditional use review of structures on slopes greater than 15 percent.
- (d) States would continue existing trout stocking programs on tributaries, fishery research, and joint state regulations and management of fishery resources.

II. Water Quality Management Action:

Several towns act, under existing regulations, to protect water quality by eliminating or mitigating the adverse impacts from runoff, contamination or other types of pollutants.

Surface Water Actions

- (a) Continue to prohibit identified incompatible land uses, including heavy industrial uses (11 towns prohibit), junkyards (10 towns prohibit), subsurface mining (7 towns prohibit), major surface mining (7 towns prohibit), landfills (10 towns prohibit), airports (11 towns prohibit), marinas (8 towns prohibit), and power plants (9 towns prohibit).

- (b) Erosion would continue to be controlled in five towns by conditional use review of construction within 100 feet of the river or by limiting lot clearance to 10 percent in seven towns or by requiring conditional use review of structure on slopes greater than 15 percent in five towns.
- (c) In New York State, continued enforcement of the existing Stream Protection Act requiring a State permit prior to modifying or disturbing the bed or banks of a protected stream.
- (d) In Pennsylvania, continued enforcement of the existing Clean Streams Act to control erosion and sedimentation.

Ground Water Actions

- (a) Groundwater pollution from septic systems would continue to be limited in eight towns by requiring 2 acre minimum lot size outside of hamlets.
- (b) Continue to prohibit incompatible uses including subsurface mining (7 towns prohibit), heavy industrial uses (11 towns prohibit), landfills (10 towns prohibit), and junkyards (10 towns prohibit).
- (c) In New York, continued enforcement of the existing Realty Subdivision Law requiring any subdivision of 5 or more parcels that are 5 acres or less in size to have a plan for adequate water facilities.
- (d) In Pennsylvania, continued enforcement of the existing Sewage Facilities Act requiring municipal plans for sewage services.

III. Scenic Resource Management Actions

- (a) Pursuant to Section 7(a) of the Wild and Scenic Rivers Act, Federal agencies will not assist, fund or license water resources projects which would have direct and adverse effects on scenic values.

- (b) Five towns will continue to make construction within 100 feet of river subject to conditional use permits.
- (c) Five towns will continue to require conditional use review for projects on land over 15 percent in grade.
- (d) Three towns will continue to require construction on ridgelines not to exceed the height of the treeline.

In addition to the major items noted above, the following also apply to scenic resources:

- (e) Eight towns will continue to require two acre minimum lot size outside of hamlets.
- (f) Eight towns will continue to limit building height to 35 feet.
- (g) Seven towns will continue to prevent unnecessary sign proliferation by controlling the number and size of off-premises signs.
- (h) Four towns will continue to prohibit clearcuts over two acres.
- (i) Seven towns will continue to limit lot coverage to 10 percent.

IV. River Recreational Use Management Actions

The National Park Service has been managing river recreation use and providing information to visitors along the Upper Delaware since 1980. Under this alternative, the National Park Service would continue those actions. They are:

- (a) Operate two ranger stations for visitor contact and management, five informational kiosks, a visitor contact facility/bookstore, 8 public river access sites, and eleven emergency access sites (several of the public access sites also serve as emergency access sites. Several are operated by permit or lease from the landowner).
- (b) Provide law enforcement on the river itself by enforcing 36 CFR and existing State fishing regulations.

- (c) During peak season (Memorial Day to Labor Day) patrol the river from Callicoon to southern terminus by boat five times per day on Saturday and Sunday and two times per week day, Monday through Friday. From approximately May 1 to Memorial Day and from Labor Day through September, patrol two times per day on Saturday and Sunday.
- (d) Provide safety information to visitors at informational centers, ranger stations, kiosks and river access sites.
- (e) Complete reconstruction of the Roebling Bridge, and open it to vehicular traffic.

The National Park Service would also continue to provide funds to local towns for solid waste removal and law enforcement.

Existing public river-related facilities identified in Chapter III D would remain and continue to be operated by the National Park Service, States and local governments, reference map 4. No new facilities would be acquired, developed or managed by the National Park Service.

The primary providers of river boating opportunities would continue to be the canoe liveries. Watercraft rental businesses would continue to be authorized to operate on the river through commercial use licenses issued by the National Park Service. River use safety standards and procedures to ensure user safety are defined in the license.

At this time there are no limitations on river use. There is a multi-year recreation use study underway which would provide information to the National Park Service to help it determine whether existing or increased river use would degrade environmental quality, create safety hazards for river users or result in violations of the property rights of riparian landowners. Based on this study and on monitoring the river use, appropriate measures would be taken by the National Park Service. Options might

include establishing water use performance guidelines for water recreational uses and establishing voluntary limits on numbers of commercial watercraft. If needed, more stringent options such as a registration system or a permit system that allocates use would be considered by the National Park Service. It is not considered likely that the more stringent options would be exercised because of the projected levels of use.

V. Cultural Resources Management Actions

Historic and archeological resources that are in private ownership would remain in private ownership. NPS would continue to provide technical assistance to property owners, local governments, and historic preservation organizations.

Historic Resources

- (a) Upon request, State Historic Preservation Officers would continue to assist in the identification of properties eligible for the National Register of Historic Places.
- (b) The National Park Service would:
 - (1) Upon request, provide assistance to local governments on historic preservation techniques.
 - (2) Upon request, provide technical assistance to property owners on historic preservation.
 - (3) Assure consistency of other Federal agency actions with the National Historic Preservation Act.
 - (4) Manage the historic Roebling Bridge for interpretive purposes.
 - (5) Lease a portion of the historic Arlington Hotel for visitor contact purposes.
 - (6) Utilize the Zane Grey House for interpretive purposes and as a museum in cooperation with the private owner.
- (c) Sullivan County will continue to own and manage Fort Delaware and Minisink Battleground for interpretive and recreation purposes.

Archeological Resources

- (a) Prohibit identified incompatible land uses.
- (b) Upon request, State Historic Preservation Officers will assist in the identification of sites eligible for the National Register of Historic Places.
- (c) The National Park Service will assure consistency of other Federal agencies with the National Historic Preservation Act and other related legislation.

VI. Land Management Actions

Several towns have established regulations to provide for the continuation of existing patterns and types of land uses. These include:

- (a) Eight towns will continue to require a minimum lot size of two acres outside of hamlets.
- (b) Towns will continue to prohibit incompatible land uses including junkyards (10 towns prohibit), landfills (10 towns prohibit), power generating stations (9 towns prohibit), major surface mining operations (7 towns prohibit), heavy industrial uses (11 towns prohibit), subsurface mining (7 towns prohibit), and marinas (9 towns prohibit).
- (c) Four towns will continue to have regulations to ensure that existing agricultural and forestry uses are encouraged.

Overall Management

NPS would continue its responsibilities for river recreation management. No intergovernmental coordinating body or mechanisms would be developed. The Citizen's Advisory Council would continue its present role of encouraging public involvement in planning and management decisions relating to the Upper Delaware.

3. Alternative 3: Implement a Modified RMP

The River Management Plan, as described under Alternative 1, would be modified before adoption by the Secretary of the Interior. The modifications would reflect the fact that there would be no Upper Delaware Council due to lack of local support. Instead, the responsibilities and functions assigned the Council in the RMP and Guidelines (as described in Alternative 1) would be assumed by the National Park Service. The revised Guidelines would replace the existing Guidelines issued by the Secretary in 1981.

For the purpose of the environmental analysis contained in this EIS (see Chapter IV), it is assumed that over the course of the planning period that at least those ten towns which either currently have zoning specifically linked to protection of the resource of the Upper Delaware river corridor or which have sought NPS assistance for developing zoning provisions aimed at protecting the river corridor would manage their river resource in a manner generally consistent with the RMP and the Guidelines. This would indicate that the provisions of the Guidelines would likely be incorporated into these towns' Land Use Regulations even in the absence of a council. Five of the towns would not incorporate the provisions of the Guidelines.

River Corridor Boundary

The boundary would be the same as under Alternative 1, encompassing 55,574.5 acres and 73.4 river miles. See Map 2.

River Classification

The scenic and recreational segments and hamlet areas described under Alternative 1 would be used. See Map 3.

Resource Conservation: Resource conservation would occur in those ten towns which have are adopted or are likely to adopt laws, ordinances, and regulations to protect and enhance resource values consistent with the

Guidelines, which are considered to be an integral part of the RMP, and through existing programs and laws at the State and Federal levels. Actions arising from those laws, ordinances, and regulations (which would be taken by ten local governments unless otherwise noted) include, by issue topic:

I. Sport Fishery Management Actions

Towns would act, under existing or anticipated regulations, to conserve and protect the habitat of significant species, including trout, bass, and shad. Actions under other resource topics, particularly actions to protect water quality, would also serve to protect fish habitat.

- (a) Pursuant to Section 7(a) of the Wild and Scenic Rivers Act, Federal agencies will not fund, permit or license water resources projects which would have direct and adverse effects on fishery resources, principally including prohibitions on impoundments, channel modifications, alterations of the shoreline or river-bottom, rip-rapping, etc.
- (b) Prohibit identified incompatible uses, including marinas, major surface mining operations, power generating plants, landfills, heavy industrial uses (reference Schedule of Compatible, Conditional and Incompatible Uses, page 134 of RMP), which would negatively impact fishery habitat.
- (c) Prevent erosion and sedimentation by providing for conditional use permit review for construction within 100 feet of the river, or involving slopes over 15 percent.
- (d) Prevent erosion and sedimentation by limiting clearing for building purposes to 20 percent of lot area with reduction to 10 percent for slopes over 15 percent grade or requiring slopes of less than 16 percent in grade for the location of all principal structures, with exceptions for agriculture and forestry.

- (e) Prevent erosion and sedimentation by providing for sound timber management practices including the removal of only individual selected trees within 50 feet of corridor streams, prohibiting clearcutting of over two acres or making it a conditional use subject to a professional forester's review (with exceptions for agricultural and wildlife management) and establishment of regulations requiring soil stabilization.
- (f) Continuation of existing State trout stocking programs on the tributaries, fishery research undertaken by the States and Delaware River Basin Fish and Wildlife Management Cooperative and joint State regulation and management of fishery resources including purchase of fishing access.

II. Water Quality Management Actions

Surface Water Actions:

Water quality actions are directed at protecting the existing quality of surface and ground water by eliminating or mitigating the adverse impacts from runoff, contamination, or other types of pollutants.

- (a) Prohibit identified incompatible land uses, including heavy industrial uses, landfills, major surface mining operations, junkyards.
- (b) Prevent erosion by providing for conditional use permit review for construction within 100 feet of the river, or involving slopes over 15 percent.
- (c) Prevent erosion by limiting clearing for building purposes to 20 percent of the lot area with reduction to 10 percent for slopes over 15 percent in grade or requiring slopes of less than 16 percent in grade for the location of all principal structures, with exceptions for agriculture and forestry.

- (d) Prevent erosion by providing for sound timber management practices, including the removal of only individual selected trees within 50 feet of corridor streams, prohibiting clear cutting of over two acres or making it a conditional use subject to a professional forester's review and establishment of regulations requiring soil stabilization.
- (e) In Pennsylvania, continued enforcement of the existing Clean Streams Act, requiring provisions to control erosion and sedimentation.
- (f) In New York State, continued enforcement of the Stream Protection Act requiring a state permit prior to modifying the bed or banks of a protected stream.

Ground Water Actions

- (a) Limit groundwater pollution from septic systems by requiring a 2 acre minimum lot size outside of hamlets.
- (b) Prohibit identified incompatible uses which could negatively impact ground water quality, including subsurface mining, new solid and toxic waste disposal sites, major surface mining operations, heavy industrial uses, landfills.
- (c) In New York, continued enforcement of the Realty Subdivision Law requiring any subdivision of 5 or more parcels of five acres or less to have a plan for adequate water facilities.
- (d) In Pennsylvania, continued enforcement of the Sewage Facilities Act requiring municipal plans for sewage services.

III. Scenic Resource Management Actions

The corridor is presently rural in character, with expanses of forests and occasional farms and settlements. To retain this character, the following actions would be taken:

- (a) Prohibit identified incompatible uses including marinas, major surface mining operations, power generating plants, heavy industrial uses (reference Schedule of Compatible, Conditional and Incompatible Land Uses).
- (b) Make construction within 100 feet of the river subject to conditional use permits.
- (c) Require slopes of less than 16 percent in grade for the location of all principal structures or require conditional use review for projects on land over 15 percent in grade.
- (d) Require construction on ridgelines not to exceed the height of the treeline.

In addition to the major items noted above, the following also apply to scenic resources:

- (e) Require two acre minimum lot size outside of hamlets
- (f) Require 150 feet minimum separation of principal structures along the river.
- (g) Require minimum lot width (150 feet), building setback (35 feet), and front yard (35 feet).
- (h) Limit building height to 35 feet, with exceptions for farm structures.
- (i) Prevent unnecessary sign proliferation by prohibiting off-premises advertising signs, establishing design standards to ensure that signs harmonize with the surrounding environment, and/or establishing size criteria. This will reduce the potential number and size of signs per property and/or riverfrontage.
- (j) Prohibit clearcutting of over two acres or make it a conditional uses subject to a professional forester's review; allow removal of only individual selected trees within 50 feet of corridor waterways.

- (k) Limit maximum lot coverage (buildings, pavement, etc.) to 10 percent and/or limiting clearing for building purposes to 20 percent of the lot area with reduction to 10 percent for slopes over 15 percent in grade.
- (l) Pursuant to Section 7(a) of the Wild and Scenic Rivers Act, Federal agencies will not license any water resources project affecting the river which would have direct and adverse effects on scenic values.

IV. River Recreational Use Management Actions

The National Park Service has been managing river recreation use and providing information to visitors along the Upper Delaware since 1980. For this Alternative, the National Park Service would continue those actions described under Alternative 2, Maintain Status Quo.

In addition to continuing existing river recreation management actions, the National Park Service, and other levels of government would acquire and develop approximately 124 acres for visitor use and river management purposes and/or expand existing facilities. These include an NPS visitor contact/interpretation center, two NPS district ranger stations, three NPS interpretation sites, three NPS river rest stops, two NPS parking areas at the Roebing Bridge, Zane Grey House, and one Commonwealth of Pennsylvania canoe-in campground. The location and approximate acreage of these facilities are as identified under Alternative 1, the Proposed Action.

The proposed action does not provide for any limitations on river use at this time. There is a multi-year recreation use study underway which would provide information to the National Park Service to help it determine whether existing or increased river use would degrade environmental quality, create safety hazards for river users or result in violations of the property rights of riparian landowners. Based on this study and on

monitoring the river use, appropriate measures would be taken by the National Park Service. Options might include establishing water use performance guidelines for water recreational uses and establishing voluntary limits on numbers of commercial watercraft. If needed, more stringent options such as a registration system or a permit system that allocates use would be considered by the National Park Service. It is not considered likely that the more stringent options will be exercised because of the projected levels of use.

V. Cultural Resources Management Actions

Historic and archeological resources that are in private ownership would remain in private ownership. NPS would provide technical assistance to property owners, local governments, and historic preservation organizations.

Historic Resources

- (a) Upon request States will provide information and assistance in the management of historic sites and resource inventories.
- (b) Upon request State Historic Preservation Officers will assist in the identification of properties eligible for the National Register of Historic Places.
- (c) Upon request the National Park Service would:
 - (1) Provide assistance to local governments on historic preservation techniques.
 - (2) Provide technical assistance to property owners on historic preservation.
 - (3) Assure consistency of other Federal agency actions with the National Historic Preservation Act.
 - (4) Publish or assist with the publication of a guide to the cultural resources of the river corridor; provide public programs to encourage appreciation of historic resources.

- (5) Upon request provide funding for historic studies and planning.

Key sites would be managed as identified under Alternative 1, the Proposed Action.

Archeological Resources

- (a) Upon request, States will provide information and assistance in the management of archeological sites.
- (b) Upon request, State Historic Preservation Officers will assist in the identification of sites eligible for the National Register of Historic Places.
- (c) The National Park Service will:
 - (1) Upon request, provide technical assistance to property owners on protection and preservation.
 - (2) Assure consistency of other Federal agencies with the National Historic Preservation Act and other related legislation.
 - (3) Provide funding for studies and planning
 - (4) Acquire and manage the archeological site at Ten Mile River for interpretive purposes.

VI. Land Management Actions

Under this alternative, ten towns will have enacted laws and regulations to ensure the continuation of existing patterns and types of land uses. Major land use actions include:

- (a) Establish minimum lot size of two acres outside of hamlets
- (b) Prohibit incompatible land uses including junkyards, channel modifications, impoundments, landfills, power generating stations, major surface mining operations, heavy industrial uses, major electric lines, new paved four-lane roads and bridges, major oil and gas transmission lines, waste disposal sites.

- (c) Establish regulations to ensure that existing agricultural uses are not made non-conforming in town ordinances by virtue of other regulations adopted to meet the Land and Water Use Guidelines.

Under this alternative, most of the actions are identical to those under Alternative 1, the proposed plan. However, it is assumed that fewer towns will be generally consistent with the Guidelines and modified Plan.

As noted, it is estimated that 10 of the 15 towns will manage the river corridor consistent with the modified plan and guidelines. In the remaining towns, resource values would not be protected and actions would not be taken at the local level in a manner consistent with the plan. Any clear and direct threats to natural resources would be dealt with solely by the National Park Service using the Secretary of the Interior's authority to acquire lands contained in Section 704(e)(4) of the legislation. Up to 7340 acres could be acquired in this manner. Any lands so acquired would be resold, with restrictive covenants in the deed to prevent the recurrence of the clear and direct threat.

Overall Management

NPS would implement the modified RMP, and would have sole responsibility for monitoring land uses and determining conformance with the Guidelines and the RMP for the Secretary.

The Citizen's Advisory Council would continue its present role of encouraging public involvement in planning and management decisions relating to the Upper Delaware. The States of New York and Pennsylvania would continue existing resource protection programs and actions, as identified under the resource issue topics.

C. Assumptions Regarding the Land Use Guidelines

In order to assess the impacts of the three alternatives, it was necessary that the EIS team make assumptions about the level of town consistency which would occur and what actions they would likely take in response to the Land Use Guidelines.

The Guidelines themselves contain a series of objectives designed to meet the goals of the Upper Delaware legislation. Each objective, in turn, outlines one or more alternative actions by which a town can satisfy the particular objective. For purposes of this EIS, the study team decided to focus on those objectives which were most closely related to the major environmental topics being addressed in the EIS. These selected objectives (taken from the Land Use Guidelines) are listed in Table II.2, Column 2. Table II.3 shows major incompatible uses as listed in the Land Use Guidelines.

The EIS team next analyzed existing local zoning codes to determine which of the several alternative provisions in the Land Use Guidelines listed for a particular objective number were already reflected in town zoning codes. For analytic purposes, the EIS team concluded that provisions already being used by the greatest number of towns would be the ones most likely to be used by the other towns in the future. The EIS team's assumptions regarding the general level of town government consistency with the Guidelines under each alternative are set out in Section B of this chapter.

D. Environmental Consequence

Table II.4, Summary Comparison of Environmental Consequences, highlights the findings of the environmental impact analysis. Each topic was assessed for each alternative based on detailed analysis of available data. Chapter IV describes the specific impacts by topic.

TABLE II.1
SUMMARY OF MAJOR ALTERNATIVES

Alternative 1 Proposed Action: IMPLEMENT THE RMP	Alternative 2 No Action MAINTAIN STATUS QUO	Alternative 3 IMPLEMENT MODIFIED RMP
<p><u>Summary Description</u> The proposed River Management Plan and revised Land and Water Use Guidelines would be approved by the Secretary of the Interior. An Upper Delaware Council would be established to coordinate implementation of the plan.</p> <p><u>Boundary Acreage</u> 55,574.5 acres.</p> <p><u>Resource Conservation</u> Under this alternative it is estimated that 12 towns would participate on the council, along with the States of New York and Pennsylvania, DRBC, CAC and NPS, and would be consistent with the Management Plan and Land and Water Use Guidelines. Resource conservation will occur through the modification or adoption of local regulations or use of existing local regulations consistent with the Land and Water Use Guidelines and the Plan. Actions identified in the Plan to protect and enhance key resources include:</p>	<p><u>Summary Description</u> NPS would continue its current role in river recreation management. There would be no Upper Delaware Council and no plan for protection of resources. The revised Land and Water Use Guidelines would be adopted.</p> <p><u>Boundary Acreage</u> Approximately 86,000 acres, as provided in the 1978 legislation.</p> <p><u>Resource Conservation</u> Under this alternative no modifications to existing local resource protection regulations would occur. Existing town actions which protect key resources include:</p>	<p><u>Summary Description</u> The River Management Plan would be modified before adoption by the Secretary of the Interior. The revisions would reflect the fact that no Upper Delaware Council would be established and NPS would perform the responsibilities assigned to the Council in the proposed action. NPS management would stress protection of threatened resources. The revised Land and Water Use Guidelines would be adopted.</p> <p><u>Boundary Acreage</u> 55,574.5 acres.</p> <p><u>Resource Conservation</u> Under this alternative it is estimated that 10 towns would adopt or modify local regulations or use existing local regulations consistent with the Land and Water Use Guidelines and Plan. Actions identified in the Guidelines and Plan to protect and enhance key resources include:</p>

TABLE II.1 (continued)
SUMMARY OF MAJOR ALTERNATIVES

Alternative 1 Proposed Action: IMPLEMENT THE RMP	Alternative 2 No Action MAINTAIN STATUS QUO	Alternative 3 IMPLEMENT MODIFIED RMP
<p><u>Sport Fishery Actions</u></p> <p>(a) Prohibit identified incompatible uses.*</p> <p>(b) Prevent erosion by controlling development on slopes over 15 percent, and within 100 feet of river, and clear-cutting.</p>	<p><u>Sport Fishery Actions</u></p> <p>(a) Prohibit water resource project having direct and adverse effects on the river (Section 7(a), P.L. 90-542).</p> <p>(b) Prevent erosion by controlling development within 100 feet of river (5 towns prohibit) on steep slopes (5 towns prohibit) or limiting lot clearance (7 towns prohibit).</p>	<p><u>Sport Fishery Actions</u></p> <p>Same as Alternative 1</p>
<p><u>Water Quality Actions</u></p> <p><u>Surface Water</u></p> <p>(a) Prohibit incompatible uses.</p> <p>(b) Prevent erosion by controlling development within 100 feet of river, and on slopes over 15 percent.</p>	<p><u>Water Quality Actions</u></p> <p><u>Surface Water</u></p> <p>(a) 7-11 towns prohibit incompatible uses.</p> <p>(b) 5 towns prevent erosion by controlling development within 100 feet of river or on steep slopes.</p>	<p><u>Water Quality Actions</u></p> <p><u>Surface Water</u></p> <p>Same as Alternative 1</p>
<p><u>Ground Water</u></p> <p>(a) Require 2 acre minimum lot size.</p> <p>(b) Prohibit incompatible uses.</p>	<p><u>Ground Water</u></p> <p>(a) 8 towns require 2 acre minimum lot.</p> <p>(b) 7-11 towns prohibit incompatible uses.</p>	<p><u>Ground Water</u></p> <p>Same as Alternative 1</p>
<p><u>Scenic Resource Actions</u></p> <p>(a) Prohibit incompatible uses.</p> <p>(b) Require 2 acre minimum lot size.</p> <p>(c) Protect key scenic resources by controlling development on ridgelines, within 100 feet of river and on slopes over 15 percent.</p>	<p><u>Scenic Resource Actions</u></p> <p>(a) 7-11 towns prohibit incompatible uses.</p> <p>(b) 8 towns require 2 acre minimum lot.</p> <p>(c) Protect key scenic resources by controlling development on steep slopes (5 towns prohibit),</p>	<p><u>Scenic Resource Actions</u></p> <p>Same as Alternative 1</p>

*For a definition of incompatible uses, reference page 134 of the proposed final river management plan and the discussion in Chapter IV of this EIS, Environmental Consequences.

TABLE II.1 (continued)
SUMMARY OF MAJOR ALTERNATIVES

Alternative 1 Proposed Action: IMPLEMENT THE RMP	Alternative 2 No Action MAINTAIN STATUS QUO	Alternative 3 IMPLEMENT MODIFIED RMP
<p><u>Recreation Use Actions</u></p> <p>(a) NPS continues current programs for boating safety, livery license, public information and education, river patrol.</p> <p>(b) NPS continues river management operations and sites including 2 ranger stations, information center, 5 information kiosks, 8 public river access points, and the Roebling Bridge.</p> <p>(c) NPS acquires 124 acres for visitor contact/interpretation center, 3 interpretation sites, 2 parking areas at Roebling Bridge, and Zane Grey House.</p>	<p><u>Recreation Use Actions</u></p> <p>(a) NPS continues current programs for boating safety, livery license, public information and education, river patrol.</p> <p>(b) NPS continues river management operations and sites including 2 ranger stations, information center, 5 information kiosks, 8 public river access points, and the Roebling Bridge.</p> <p>(c) No NPS land acquisition for new recreation facilities.</p>	<p><u>Recreation Use Actions</u></p> <p>Same as Alternative 1</p>
<p><u>Cultural Resource Management</u> Historic</p> <p>(a) NPS manages Roebling Bridge, D&H Canal Locks 72 and 54, and Zane Grey House. Other levels of government and private sector take actions to preserve identified significant historic resources.</p> <p>(b) NPS provides technical assistance to private citizens in historic preservation.</p> <p>(c) NPS provides funding for historic studies and planning and assures consistency of other Federal agency actions with historic preservation laws.</p>	<p><u>Cultural Resource Management</u> Historic</p> <p>(a) NPS manages Roebling Bridge. Other levels of government and private sector continue existing actions to preserve identified significant historic resources.</p> <p>(b) NPS provides technical assistance to private citizens in historic preservation.</p> <p>(c) NPS assures consistency of other Federal agency actions with historic preservation laws.</p>	<p><u>Cultural Resource Management</u> Historic</p> <p>Same as Alternative 1</p>

TABLE II.1 (continued)
SUMMARY OF MAJOR ALTERNATIVES

Alternative 1 Proposed Action: IMPLEMENT THE RMP	Alternative 2 No Action MAINTAIN STATUS QUO	Alternative 3 IMPLEMENT MODIFIED RMP
<p>Archeological</p> <p>(a) NPS manages Ten Mile River site for archeological and interpretive purposes.</p> <p>(b) NPS provides funding for planning and studies, and technical assistance to private citizens.</p> <p>(c) NPS seeks other Federal agency consistency with applicable laws.</p>	<p>Archeological</p> <p>(a) NPS provides technical assistance to private citizens.</p> <p>(b) NPS seeks other Federal agency consistency with applicable laws.</p>	<p>Archeological</p> <p>Same as Alternative 1</p>
<p>Land Management Actions</p> <p>(a) Require 2 acre minimum lot size.</p> <p>(b) Prohibit incompatible land uses.</p> <p>(c) Establish regulations providing for continuation of existing land uses.</p>	<p>Land Management Actions</p> <p>(a) 8 towns require 2 acres minimum lot.</p> <p>(b) 7-11 towns prohibit incompatible uses.</p> <p>(c) 4 towns have regulations providing for the continuation of existing patterns and types of land uses.</p>	<p>Land Management Actions</p> <p>(a) Require 2 acre minimum lot size.</p> <p>(b) Prohibit incompatible land uses.</p> <p>(c) Establish regulations providing for the continuation of existing land uses.</p>
<p>Other</p> <p>This alternative assumes that 12 local governments would adopt and implement land use regulations to protect and enhance resources, including water quality; provide for the protection of the health and safety of valley residents; and retain existing patterns of land uses. In those 3 towns that do not take such actions, any clear and direct threat to resource values will be dealt with by the State or Federal governments, by the private sector, or as a last resort, by NPS land acquisition. Any lands so acquired by NPS will be resold with deed restrictions to prevent the resource threat.</p>	<p>Other</p> <p>No resource protection measures would be taken beyond those currently in place.</p>	<p>Other</p> <p>This alternative assumes that approximately 10 towns would manage resource in a manner generally consistent with the Plan and Guidelines. In those 5 towns which the National Park Service determines to be not consistent with the Guidelines and Plan, any clear and direct threats to resource values will be dealt with by National Park Service land acquisition. Up to 7,340 acres could be acquired. Any lands so acquired by NPS will be resold with deed restrictions to prevent the resource threat.</p>

TABLE II.1 (continued)
SUMMARY OF MAJOR ALTERNATIVES

Alternative 1 Proposed Action: IMPLEMENT THE RMP	Alternative 2 No Action MAINTAIN STATUS QUO	Alternative 3 IMPLEMENT MODIFIED RMP
<p><u>Management Structure and Responsibilities</u> The Upper Delaware Council would serve as an intergovernmental forum. It would coordinate and provide overall direction for Plan implementation, and would monitor town government conformance with the Plan and the Guidelines. Towns would remain responsible for local land use decisions. The Council would review certain categories of proposed land development for the purpose of recommending to the involved town(s) measures for improving the proposed developments to better protect the river corridor.</p> <p>The Citizens Advisory Council would encourage maximum public involvement in plan implementation and would serve as a forum to hear individual concerns about the RMP and its implementation.</p>	<p><u>Management Structure and Responsibilities</u> No intergovernmental body would be established.</p> <p>The Citizen's Advisory Council would encourage maximum public involvement in planning and management decisions relating to the Upper Delaware.</p>	<p><u>Management Structure and Responsibilities</u> NPS would monitor town conformance with both the Guidelines and the modified RMP.</p> <p>The Citizen's Advisory Council would encourage maximum public involvement in Plan implementation and would serve as a forum to hear individual concerns about the RMP and its implementation.</p>

Table II.2 - Estimated Level of Town Consistency with Key Selected Principles and Objectives Contained in the Land Use Guidelines

Principle	Major Objective	Likely Action	Alternative 1: Proposed Plan		Alternative 2: Status Quo		Alternative 3: Modified Plan	
			# of Towns*	% of Corridor Acreage	# of Towns*	% of Corridor Acreage	# of Towns*	% of Corridor Acreage
A. Maintain water quality	Limit soil erosion on steep slopes	Conditional use review of structures on slopes >15%	12	85	5	35	10	75
	Maintain natural cover	10% (or no more than 12,000 sq. ft.) lot coverage	12	85	7	50	10	75
	Protect erosion hazard areas	Conditional use review within 100' setback from river	12	85	5	35	12	75
B. Provide for the protection of health and safety and welfare and protection of natural resources	Protect special erosion hazard areas along ridgelines	Ensure buildings are not located close to the ridgeline	12	85	3	20	12	75
	Limit pollution from septic system	2 acre minimum lot size outside of hamlets	12	85	9	65	12	75
	Promote for sound timber practices	Prohibit clear cuts over 2 acres	12	85	4	30	10	75
F. Maintain existing patterns of land use and ownership	Provide for light and air	35' maximum bldg. height	12	85	8	55	12	75
	Limit housing density	Generally prohibit off premises signs	12	85	7	40	11	80
		Special zoning district for corridor with minimum 2 acre lot size	12	85	8	60	10	75

Alternatives

* Number of river corridor towns (of a total of 15) which would likely adopt land use regulations consistent with the action listed in Column 3.

Table II.3 - Estimated Number of Towns Prohibiting Major Incompatible Uses as Listed in the Land Use Guidelines

	Alternative 1: Proposed Plan		Alternative 2: Status Quo		Alternative 3: Modified Plan	
	Number of Towns*	% of Corridor Acreage	Number of Towns*	% of Corridor Acreage	Number of Towns*	% of Corridor Acreage
heavy industrial	13	90	11	70	13	85
junkyards	12	85	10	65	11	80
subsurface mining	12	85	7	50	11	80
major surface mining	12	85	7	50	11	80
landfills	12	85	10	70	12	85
airports	13	90	11	70	13	90
marinas	12	85	8	60	11	80
power plants	12	85	9	65	11	80

* Number of river corridor towns (of a total of 15) which would likely prohibit the listed major incompatible uses.

** Number of river corridor towns (of a total of 15) which currently prohibit the listed major incompatible uses.

SUMMARY
TABLE II.4 - COMPARISON OF ENVIRONMENTAL CONSEQUENCES

	ALTERNATIVE 1 PROPOSED ACTION Implement River Management Plan and Guidelines	ALTERNATIVE 2 NO ACTION Maintain Status Quo	ALTERNATIVE 3 Implement Modified River Management Plan
Shad	*1 Negligible impacts.	Minor impacts.	Negligible impacts.
Trout	*1 Minor impacts.	Moderate impacts.	Minor impacts.
Bass	*1 Minor impacts.	Moderate impacts.	Minor impacts.
Surface Water Quality	*2 Minor impacts.	Minor impacts.	Minor impacts.

*1 See page 127 for definitions of degree of impact.

*2 See page 135 for definitions of degree of impact.

SUMMARY
TABLE II.4 - COMPARISON OF ENVIRONMENTAL CONSEQUENCES (continued)

	ALTERNATIVE 1 PROPOSED ACTION Implement River Management Plan and Guidelines	ALTERNATIVE 2 NO ACTION Maintain Status Quo	ALTERNATIVE 3 Implement Modified River Management Plan
Groundwater Quality	*2 Negligible impacts.	Negligible impacts.	Negligible impacts.
Scenic Resources	The landscape will be similar to existing patterns, types, and conditions. Negligible overall scenic impacts; however, 26-34 visually obtrusive structures would cause minor loss of scenic quality in sensitive areas.	There will be moderate loss of scenic quality due to 90-110 visually obtrusive structures in scenic, sensitive areas.	The landscape will be similar to existing patterns, types and conditions. Negligible overall scenic impacts; however, 38-48 visually obtrusive structures would cause minor loss of scenic quality in sensitive areas.
Recreation Opportunities	Four additional fishing access sites and three river rest stops are proposed. Existing public facilities would adequately meet present and future canoeing and camping needs.	No additional facilities are proposed. Existing public facilities would adequately meet present and future canoeing and camping needs. An insufficient number of fishing access sites and river rest stops would occur.	Same as alternative 1.
Quality of Recreation Experience	The quality of the experience would be maintained or enhanced.	The quality of the experience would be diminished.	Same as alternative 1.

*2 See page 135 for definitions of degree of impact.

SUMMARY
 TABLE II.4 - COMPARISON OF ENVIRONMENTAL CONSEQUENCES (continued)

	ALTERNATIVE 1 PROPOSED ACTION Implement River Management Plan and Guidelines	ALTERNATIVE 2 NO ACTION Maintain Status Quo	ALTERNATIVE 3 Implement Modified River Management Plan
Visitor Management	Litter and trespass would decrease.	Litter and trespass would continue at present levels or increase.	Litter and trespass would decrease.
Archeologic Resources	NPS will provide technical assistance to private landowners. No new programs are proposed	No new programs are proposed.	Same as alternative 1.
Historic Resources	Acquire and protect Zane Grey House, Roebling Bridge and D & H Canal Locks 72 and 84. NPS will enter into four cooperative agreements to assist private landowners in historic preservation and provide technical assistance to other landowners in historic preservation.	No additional sites protected.	Same as alternative 1.
Land Values	Negligible effect on land values would result.	No impacts.	Same as alternative 1.
Municipal Finance	Additional cost of less than 1% of overall expenditures for any municipality.	No impacts.	Same as alternative 1.
Bald Eagle	Habitat would be maintained; level of use would remain unchanged.	Habitat would be maintained but with slight possibility of future adverse impacts.	Same as alternative 1.

CHAPTER III - AFFECTED ENVIRONMENT

A. Introduction

This section describes significant characteristics of the Upper Delaware's physical, biological, social, and economic environment. The purpose of describing the affected environment is to provide a baseline for analyzing the effects of the alternatives on various resources within that environment. Since this section relies heavily on existing sources of data, the level of detail reflects the level of available information. The proposed River Management Plan is incorporated by reference and contains detailed material that has not been duplicated in the main body of this Draft Environmental Impact Statement.

B. Regional Context

The Upper Delaware River is one of the few remaining examples of a free-flowing, relatively undeveloped river in the Appalachian Plateaus physiographic region. It delineates the Commonwealth of Pennsylvania's northeastern boundary with the State of New York.

The Delaware River originates in New York's Catskill Mountains. Its eastern and western branches meet at Point Mountain near Hancock, New York. The Upper Delaware Scenic and Recreational River begins here and flows southeasterly for 73.4 river miles to Sparrow Bush, just north of Port Jervis, New York (see Map 2). The river is bordered in New York by the eight towns of Hancock, Fremont, Delaware, Cohecton, Tusten, Highland, Lumberland and Deerpark (in Delaware, Orange and Sullivan Counties), and in Pennsylvania by the seven townships of Buckingham, Manchester, Damascus, Berlin, Lackawaxen, Shohola and Westfall (in Wayne and Pike Counties).

Rolling wooded hills ranging in elevation from 800 to 2,000 feet above sea level surround the river valley. The shape of the valley changes from

narrow steeply cut walls and high bluffs to broad U-shaped sections with wide low-lying lands along the river. Hardwoods such as oak, beech, birch and maple are found in the northern portion of the corridor, while softwoods such as white pine and hemlock are more prominent in the southern portion.

Land areas in the Upper Delaware River corridor are rural in character, consisting of large expanses of forest broken by occasional farms, settlements, and low-lying marsh areas along the river. Over ninety percent of the land in the river corridor is in private ownership. Public land consists of state forests, local parks, and boating and fishing access sites. Most settlement is in the form of small hamlets; numerous dispersed homesites are also located throughout the valley. Commercial development is found primarily in the hamlets; however, canoe liveries and campgrounds are located at several points along the river shoreline. Within the corridor, the largest settled areas are at Narrowsburg and Callicoon, New York, with numerous smaller hamlets along both sides of the river.

The Upper Delaware Valley is rich in structures that reflect its history and cultural development. Prehistoric archeologic sites, historic architecture, and historic engineering and industrial sites are all abundant in the valley. Since the late 1700's, the Upper Delaware region has exported stone and timber for commercial purposes. In the mid 1800's canals were built to transport coal to New York City, followed soon thereafter by the railroads which eventually replaced them. With the advent of the railroads, the area began to attract vacationing city-dwellers. In the mid-1970's a major recreation and seasonal/retirement home economy began to develop.

Today recreationists travel to the Upper Delaware region from the New York City metropolitan area, northeastern Pennsylvania and the Philadelphia area, Binghamton, New York, and western New England metropolitan areas.

The Upper Delaware's accessibility to major metropolitan areas has been improved by the construction of Interstates 80, 81, 84 and New York's Highway 17. These highways bring the Upper Delaware within a two to four hour drive of the region's major population centers. The region is experiencing growth pressures from the expanding resort and tourism-based economies of the Catskills in New York and the Poconos in Pennsylvania, both of which border the river corridor.

C. Natural Resources

1. Physical Environment

The Upper Delaware River lies within the Catskill Mountains section of the Appalachian Plateau physiographic province. This physiographic region consists chiefly of upland areas composed of flat to very gently folded beds of sandstone, shale and conglomerates. The river and its tributaries have carved deep narrow valleys across the plateaus. The numerous wetlands and lakes found on the plateaus are characteristic of prior glaciation. The region's rolling hills vary in elevation from 800 to 2,000 feet and are characterized as a series of indistinct and irregular escarpments. Relief is generally between 300 and 500 feet, although it exceeds 700 feet in a few locations. As shown on Map 5, much of the river valley consists of steeply sloped land, with a gradient of over 15%.

There is a diversity of unique landforms throughout the river corridor, including the Delaware Gorge, which has been identified by the Pennsylvania Bureau of Topographic and Geologic Survey as one of the outstanding scenic geologic features in the state. The gorge begins above Matamoras and runs north throughout most of the river segment.

Glacial deposits cover the area at depths of up to 300 feet and are marked with ponds, lakes and wetlands. Bedrock outcrops are also abundant along the steep-sided valleys and within the riverbed. For much of its length the Upper Delaware River lies within a relatively narrow valley, widening slightly between Hancock and Callicoon.

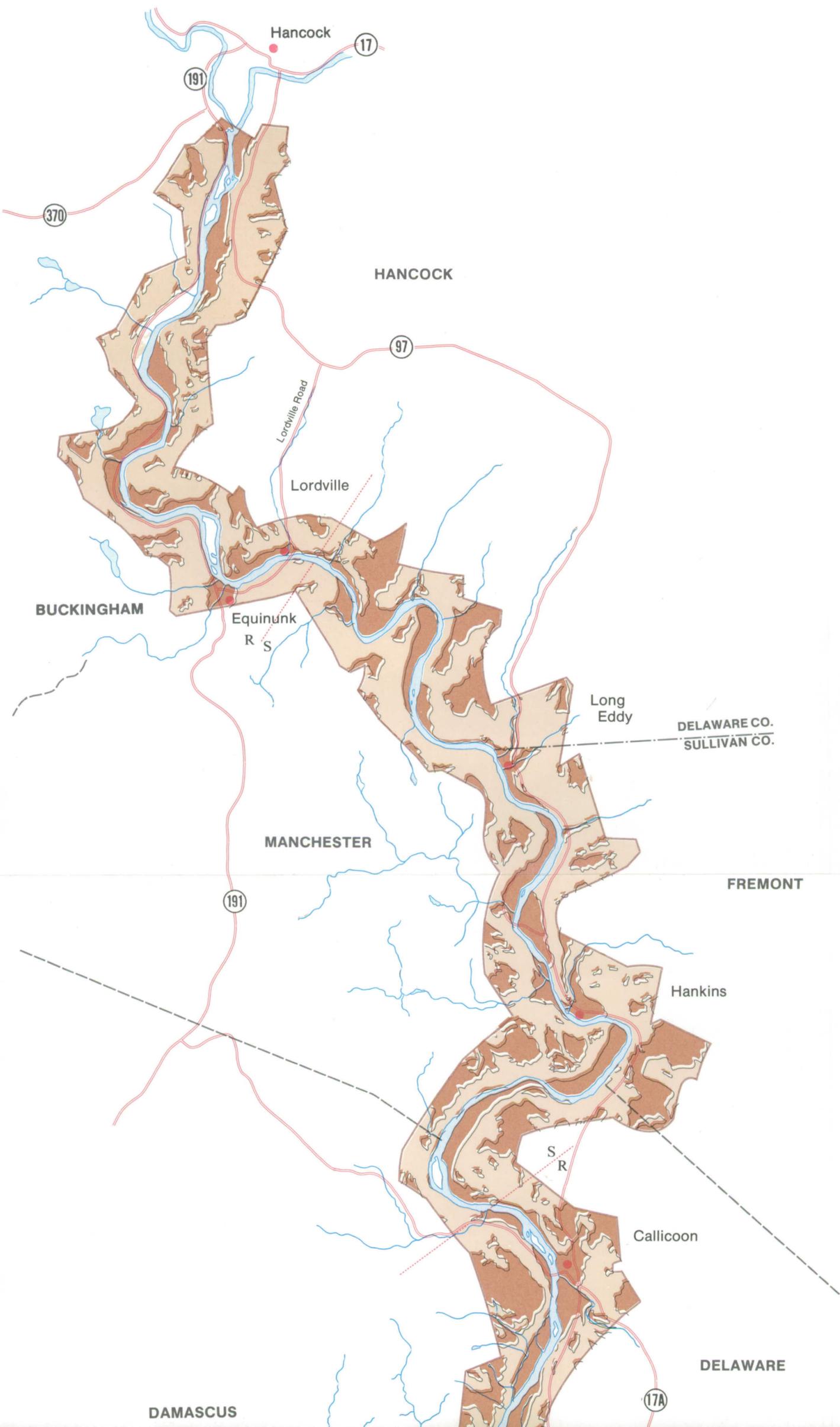
2. Mineral and Soil Resources

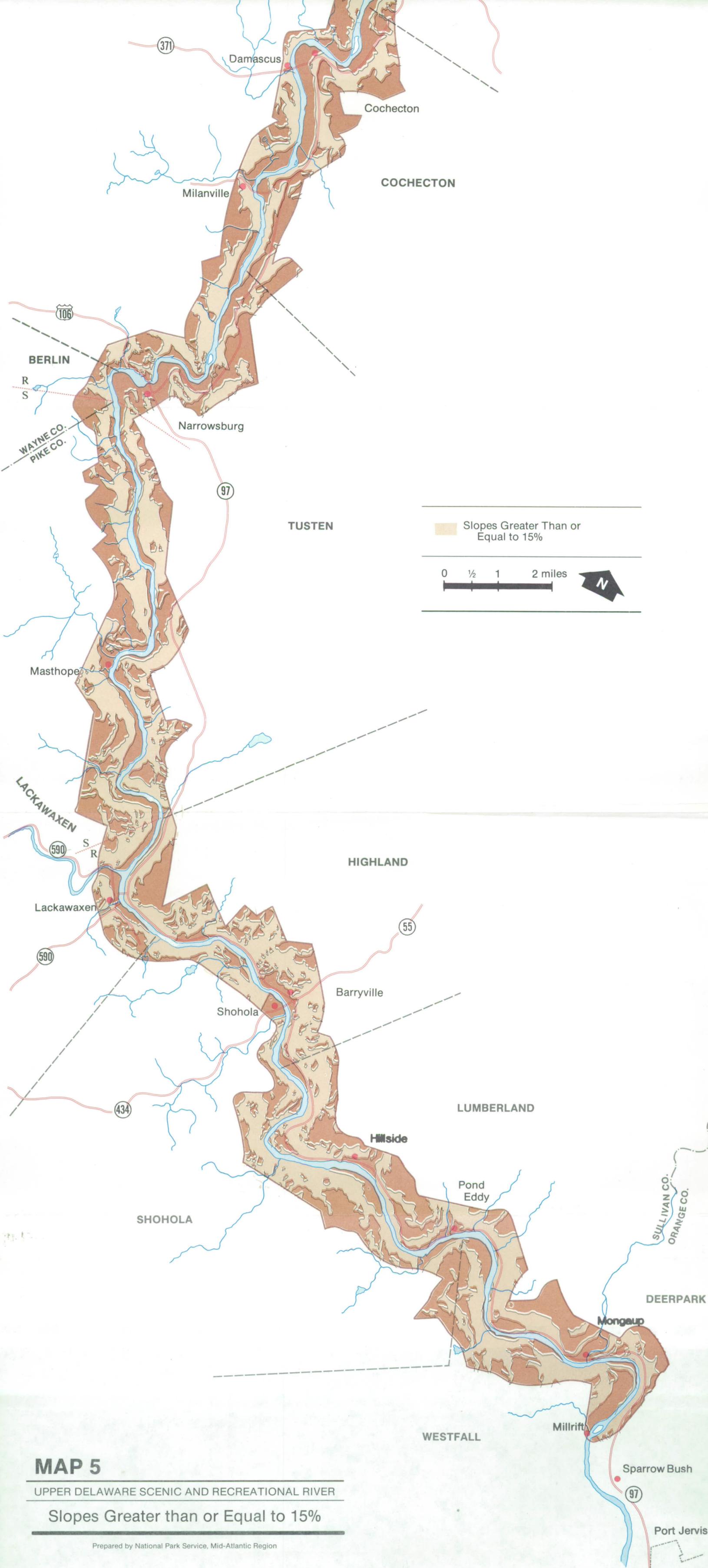
Minerals

Geologic processes in the river area left many economically valuable deposits, including bluestone, sand and gravel, shale, and peat. Within the Upper Delaware river corridor reserves of sand and gravel and bluestone are found. Sand and gravel are the primary minerals mined today in the area. They are used primarily for aggregates and concrete used in construction. Some sand and gravel is sold for commercial use and some is used by federal, state and local governments for road construction and maintenance.

In New York, there are at least 6 active sand and gravel operations in proximity to the Upper Delaware area. These include operations based in Yulan, Harrowsburg, Barryville, Port Jervis, Mongaup Valley and Callicoon. Information on the number of active sand and gravel operations in Pennsylvania is unavailable.

There is some bluestone, marble and shale in the area, and a few active operations for these minerals are found in New York. Sandstone is also found along the river cliffs, and isolated pockets of uranium also occur. There are no known significant deposits of metals, anthracite or bituminous coal. Isolated pockets of petroleum and natural gas may be found, but there are no known areas of high production.





MAP 5

UPPER DELAWARE SCENIC AND RECREATIONAL RIVER

Slopes Greater than or Equal to 15%

Prepared by National Park Service, Mid-Atlantic Region

For the most part, the Upper Delaware River floodplain is a fairly consistent 1/4 to 1/2 mile width between Hancock and Skinner's Falls, narrowing between Skinner's Falls and Harrowsburg, and again at the southern portion of the river corridor (see Map 6). Characterized by lowland forest vegetation, the floodplain contains riparian vegetative associations and some instances of primary successional species. Floodplain mapping for the river corridor is currently underway by the U.S. Geological Survey and the U.S. Army Corps of Engineers, as part of the National Flood Insurance Program (see Appendix D). Eight of the fifteen Upper Delaware towns have adopted floodplain protection ordinances as part of this program; the remainder are still in the program's emergency phase. During the last fifteen years, approximately fifty new structures have been built within the floodplain corridor.

4. Wetlands

Wetlands are defined by the U.S. Fish and Wildlife Service as lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands are inundated by surface or groundwater with a frequency sufficient to support vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands are important for water quality protection, aquifer recharge, natural flood mitigation and erosion control. They are also critical for wildlife habitat and breeding for fish and waterfowl.

In the Upper Delaware River corridor, wetlands generally consist of marsh areas and wooded swamps. Concentrations of wetlands within the river corridor are found in Fremont, NY, and Lackawaxen and Shohola, PA. The few wetland areas located on the New York side of the river corridor have been mapped by the New York Department of Environmental Conservation.

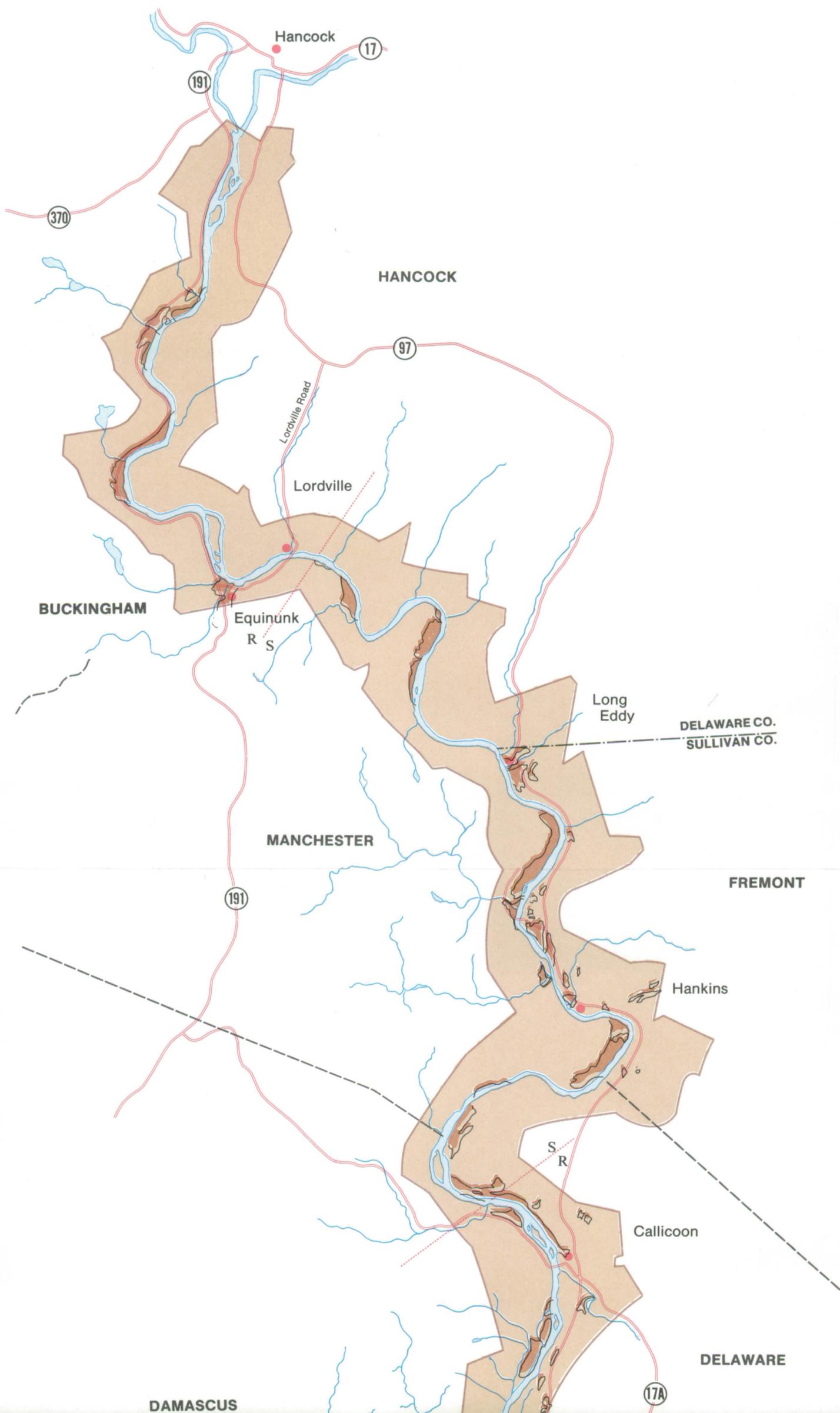
Soils

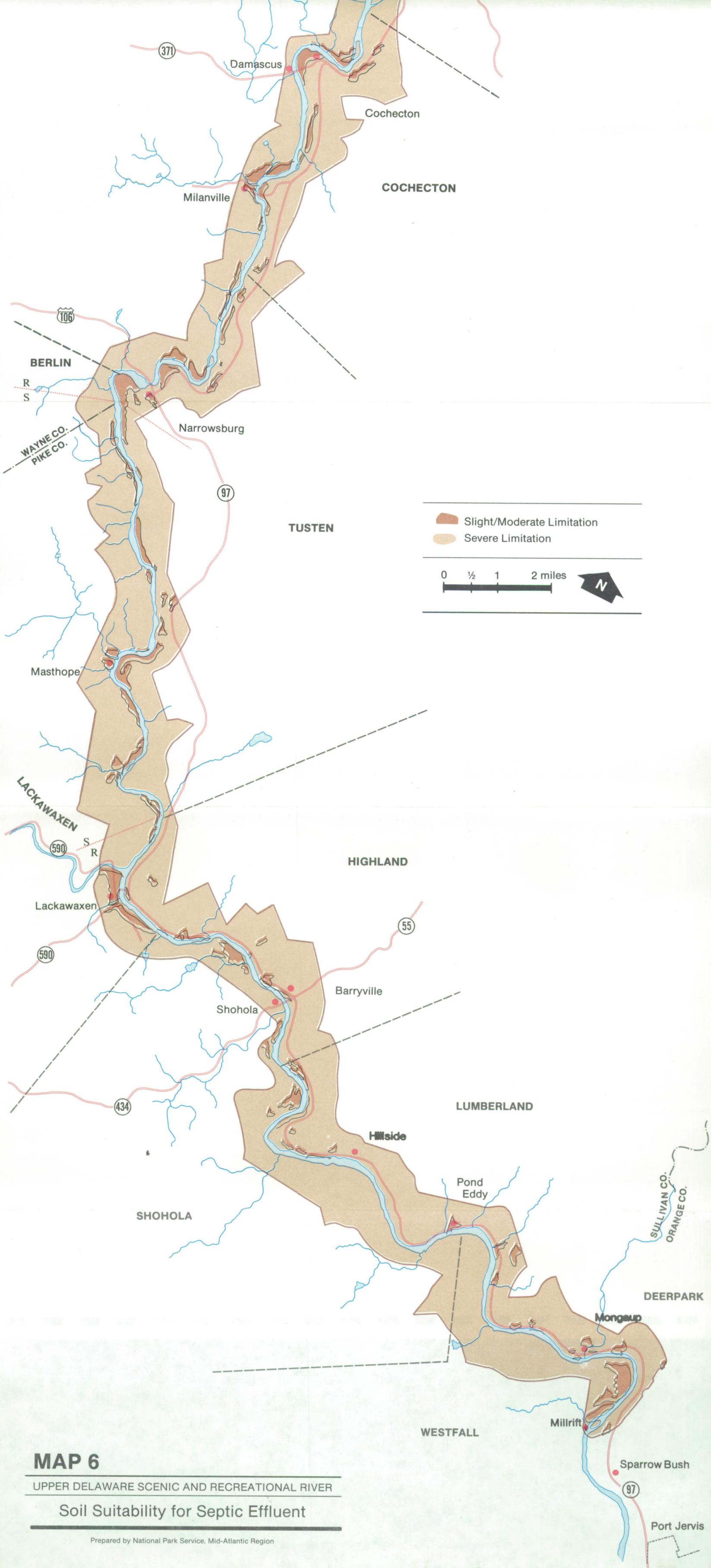
The parent materials for most of the soils within the river corridor were largely deposited as till or outwash from receding glaciers. Red and gray sandstone, siltstone, and shale are primary contributors to the soils. A large area of agriculturally productive soil is found on the river floodplain and alluvial flats. Flooding renews this soil and aids in maintaining its productivity.

Information about the soils in each of the five Upper Delaware counties varies widely. Only two of the counties have complete and detailed soil surveys; others have out-dated or very general information about soil capabilities. However, as shown on Map 5, it appears from the available information that the majority of the soils in the river corridor present severe limitations to the disposal of septic tank effluent (see Appendix D for sources of mapped information.) These limitations are due to any of a number of factors: steep slopes, slow permeability, a shallow depth to bedrock, excessive stoniness, or a seasonal high water table. The most suitable soils for septic systems are generally found adjacent to the river on the inside (the deposition side) of meanders in the channel. The fact that many structures with onsite septic systems have been built on seemingly unsuitable soils indicates the generalized nature of the soil survey: within an "unsuitable" area many smaller pockets of suitable soils may be found.

3. Floodplains

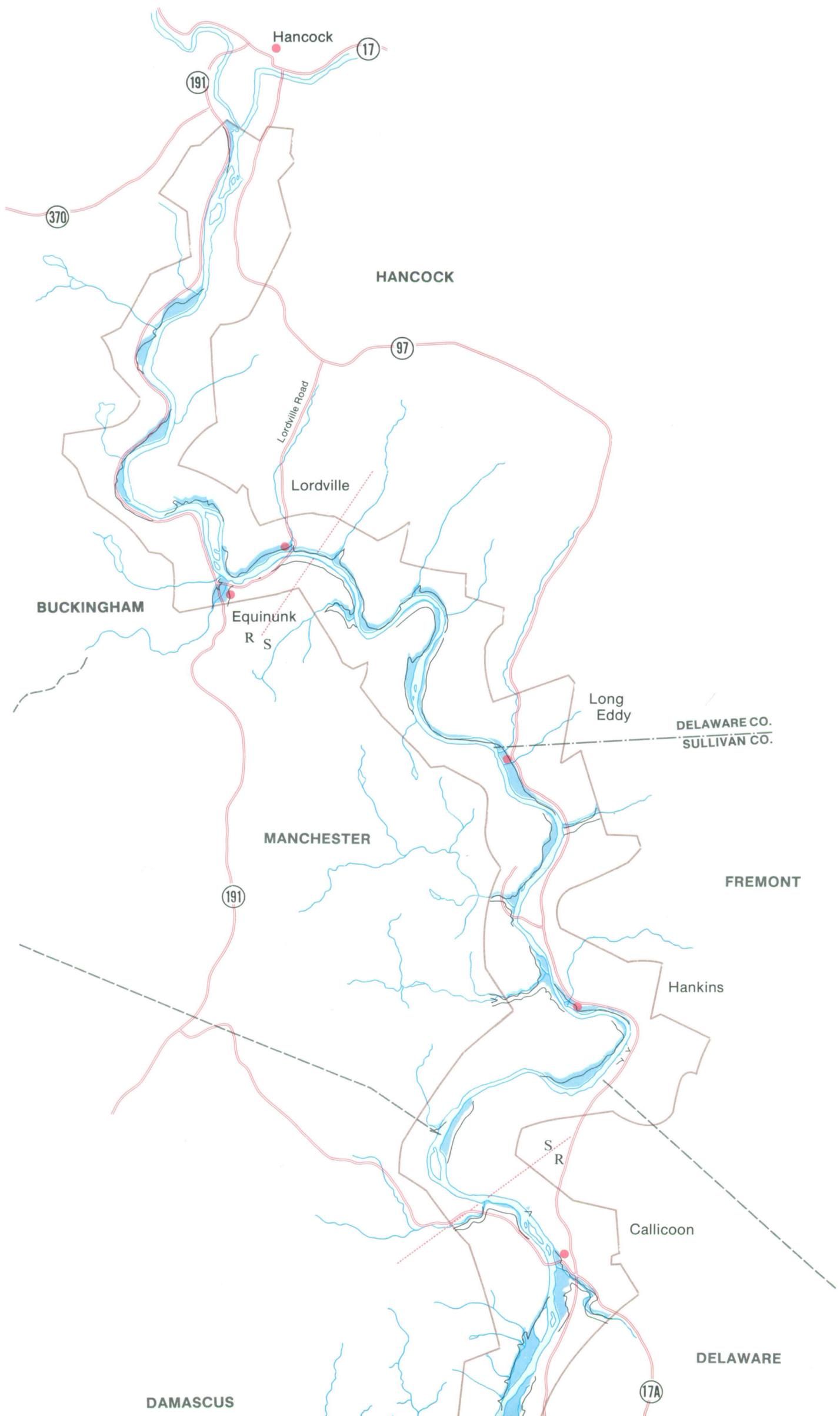
The river floodplain is the flat area adjacent to the river channel constructed by the present climate and overflowed at times of high discharge (Dunne and Leopold, 1978). Floodplains act as a natural reservoir and temporary channel for excess water. The 100-year floodplain is an area having a one in one hundred (or 1%) average frequency of flooding in any given year.

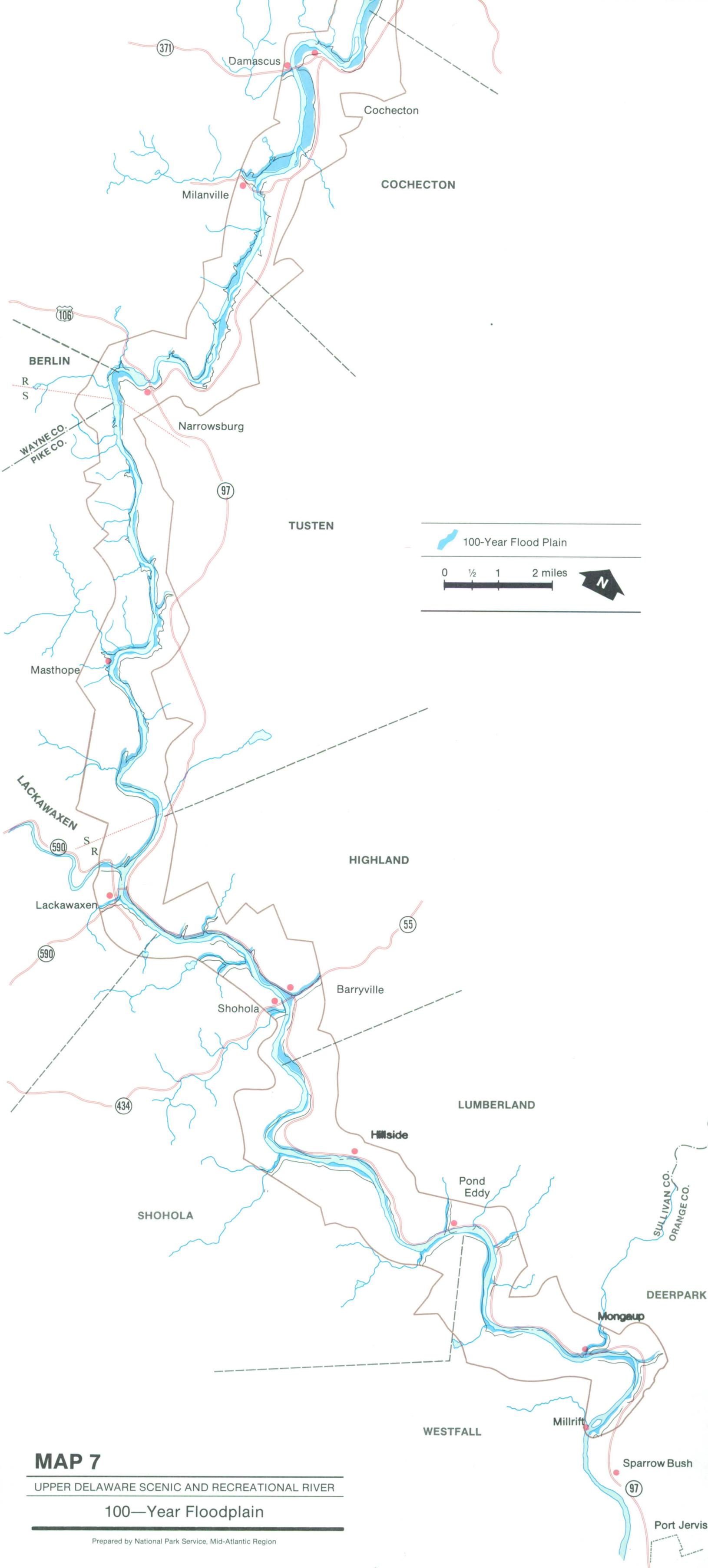




MAP 6
 UPPER DELAWARE SCENIC AND RECREATIONAL RIVER
 Soil Suitability for Septic Effluent

Prepared by National Park Service, Mid-Atlantic Region





MAP 7

UPPER DELAWARE SCENIC AND RECREATIONAL RIVER

100—Year Floodplain

Prepared by National Park Service, Mid-Atlantic Region

The New York Department of Environmental Conservation has tentative maps for freshwater wetlands 12.4 acres and larger, as well as wetland inventory maps for smaller wetlands.

According to the Pennsylvania Department of Environmental Resources, the few wetlands along the Upper Delaware are primarily located on the upland plateaus, outside of the river corridor boundary. Because of the small number of wetlands in the corridor they are not shown on a map.

5. River Characteristics

The Delaware River is free-flowing from Hancock, New York to the Atlantic Ocean, a distance of 331 miles. Of the 3,422 square-mile Upper Delaware drainage area, 2,144 square miles are drained by uncontrolled or natural flows. The Upper Delaware River has four major tributary streams: the West Branch (which drains 664 square miles), the East Branch (840 square miles), the Lackawaxen River (597 square miles), and the Mongaup River (208 square miles).

Within the river corridor, the Delaware varies between 150 and 1,500 feet in width, with most of the river between 300 and 500 feet wide. Riffle areas are generally 2 to 8 feet deep and pools 12 to 20 feet deep. The two deepest pools are at Narrowsburg (113 feet) and Pond Eddy (45 feet). There are more riffle areas than pools in the river. The pools or eddies are generally between 1/4 and 3/4 of a mile in length. The stream bottom is mainly composed of gravel and rubble, and in a few places, exposed bedrock. Although the average gradient is 6 feet per mile, there are some 2-mile stretches where the drop ranges from 13 to 30 feet per mile, creating whitewater rapids during periods of medium to high water levels. Major whitewater areas on the main stem of the Delaware include: from Basket Creek to Kellams Bridge (above Callicoon), Skinners Falls near Milanville, from below the Narrowsburg Bridge to the confluence of Ten Mile River,

Westcolang to above the Lackawaxen River, Shohola Rapids, and alternating rapids, quickwater and stillwater between Pond Eddy and Cherry Island, including Mongaup Rapids.

New York City owns and operates the Cannonsville Reservoir on the West Branch and the Pepacton Reservoir on the East Branch; a third New York City reservoir is located on the Neversink River, which flows into the Delaware near Port Jervis. A series of 5 reservoirs have been developed on the Mongaup River by Orange and Rockland Utilities for hydroelectric power generation. Lake Wallenpaupack (operated for hydropower by Pennsylvania Power and Light Company), Prompton Reservoir and General Edgar Jadwin Reservoir (both operated for flood control by the U.S. Army Corps of Engineers) regulate discharges on the Lackawaxen River.

Four gauging stations monitored by the United States Geological Survey are located at key locations in the Upper Delaware basin: Hale Eddy (West Branch Delaware), Harvard (East Branch Delaware), Callicoon (main stem Delaware) and Woodbourne (at Neversink).

6. Flow Management

Aside from natural factors such as rainfall, flows in the Upper Delaware River are influenced by three major factors. The first of these is the allocation of water from the Delaware for transport out of the river basin, as specified in a U.S. Supreme Court decree of 1954. The second, which also arises from the Supreme Court decree, is the pattern of releases from upper basin reservoirs used to meet the requirement that a minimum flow of 1,750 cubic feet per second (cfs), as measured at the gauge at Montague, New Jersey, be maintained. Finally, releases from upper basin reservoirs are made to conserve riverine fisheries.

The U.S. Supreme Court decision was the result of a suit brought by New Jersey against New York. The decree, 347 U.S. 955 (1954), gave New York City the right to withdraw 800 million gallons per day (mgd) from the Delaware, provided that the city maintain a flow of 1,750 cfs in the Delaware River at Montague, New Jersey. It further provided that New Jersey could withdraw 100 mgd from the Delaware for transfer out of the Delaware Basin. (1 mgd equals 1.54 cfs.)

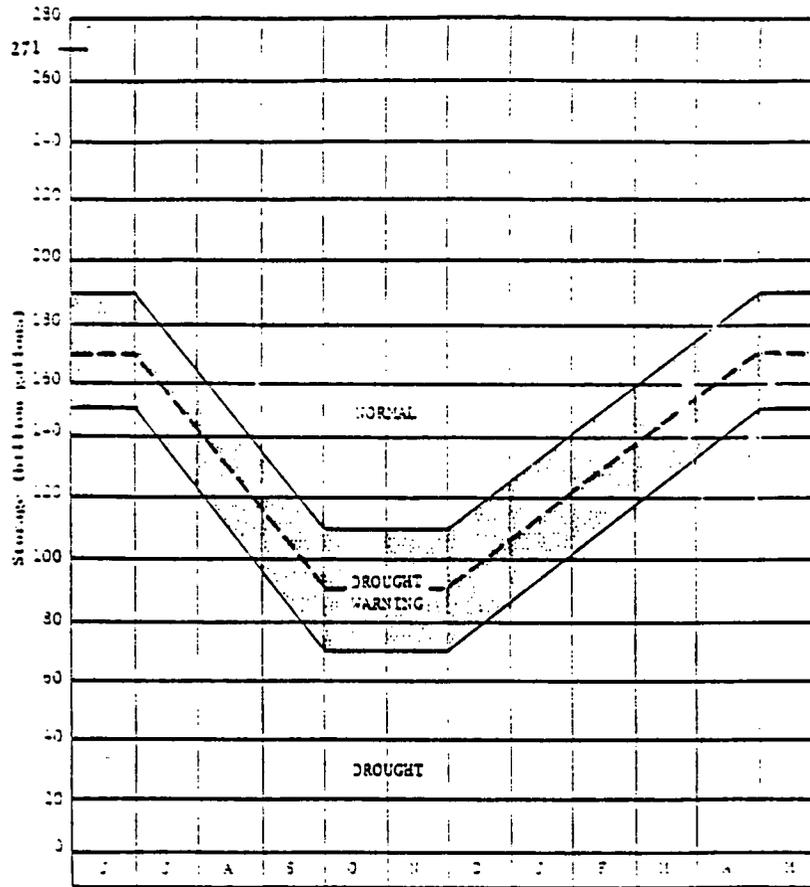
In agreeing to the Delaware River Basin Compact in 1961, the four basin states (New York, New Jersey, Pennsylvania and Delaware) agreed on behalf of themselves and their political subdivisions not to go back to the Supreme Court on their own for the life of the compact (a minimum of 100 years) to apply for any modification of the terms of the decree that would increase or decrease the diversions authorized or the releases required.

Thus, the 1954 allocations can be changed during normal hydrologic conditions by the Delaware River Basin Commission, but only with the unanimous consent of the four states and New York City. During declared emergencies, a unanimous vote of the DRBC commissioners can change the decree allocations. Congress did not give the National Park Service any authority to intervene in the allocation.

When drought conditions made it obvious that flows were inadequate to sustain both 800 mgd for out-of-basin use and a flow of 1,750 cfs at Montague, the Delaware River Basin Commission, with the unanimous consent of the parties to the decree, agreed upon reductions to take place during drought warnings and drought-emergencies. Under these restrictions (summarized in Table III.1) diversions by New York City and New Jersey decline in proportion to the storage in New York's Delaware Basin reservoirs and salinity conditions in the Delaware estuary. Under drought conditions, enough water is released from New York City reservoirs into the Delaware to help keep the "salt front" downstream of the Philadelphia and Camden, New Jersey water supplies.

TABLE III.1

1A. OPERATION CURVES FOR CANNONVILLE, PEPACTON AND NEVERSINK RESERVOIRS



1B. INTERSTATE OPERATION FORMULA FOR REDUCTIONS IN DIVERSIONS, RELEASES, AND FLOW OBJECTIVES DURING PERIODS OF DROUGHT

NYC storage condition	NYC Div. mgd	NJ Div. mgd	Montague flow objective cfs	Trenton flow objective cfs
Normal	800	100	1750	3000
Upper Half-Drought Warning	680	85	1655	2700
Lower Half-Drought Warning	560	70	1550	2700
Drought	520	65	1100-1650*	2500-2900*

Severe Drought (to be negotiated based on conditions)

* Varies with time of year and location of salt front as shown on Table 2.

1C. FLOW OBJECTIVES FOR SALINITY CONTROL DURING DROUGHT PERIODS

7-day average location of "Salt Front," River-mile*	Flow objective, cubic feet per second at:					
	Montague, N.J.			Trenton, N.J.		
	Dec- Apr.	May- Aug.	Sept- Nov.	Dec- Apr.	May- Aug.	Sept- Nov.
Upstream of R.M. 92.5	1,600	1,650	1,650	2,700	2,900	2,900
Between R.M. 87.0 and R.M. 92.5	1,350	1,600	1,500	2,700	2,700	2,700
Between R.M. 82.9 and R.M. 87.0	1,350	1,600	1,500	2,500	2,500	2,500
Downstream of R.M. 82.9	1,100	1,100	1,100	2,500	2,500	2,500

* Measured in statute miles along the navigation channel from the mouth of Delaware Bay.

The Supreme Court appointed a River Master to supervise the provisions of the decree. The operating procedures by which the Montague target flow is maintained (that is, how much water is released over a certain period by each of the three New York City dams) are also controlled under certain conditions by the New York Department of Environmental Conservation.

At the request of the New York Department of Environmental Conservation, a program of augmented conservation releases during normal hydrologic conditions was initiated as an experimental program during 1977 and formally adopted in 1983. Its purpose is to enhance the river quality, fishery, aesthetics and recreation of the Delaware River. The Memorandum of Agreement for the conservation releases was signed by the four states of the Basin Commission (New York, Delaware, New Jersey and Pennsylvania) and the City of New York and approved by the Delaware River Master.

7. Groundwater

Important groundwater resources are found in two major types of aquifers in the river corridor in consolidated bedrock and unconsolidated glacial and post-glacial deposits. The major bedrock unit in the river corridor is collectively known as the Catskill Formation of the Upper Devonian period, consisting of shales, claystones, siltstones and sandstones. Most of the bedrock is covered by unconsolidated, generally stratified glacial deposits of Pleistocene and Quaternary Age. Valley fill deposits occur in the larger valleys; measured thickness ranges from 0 to 340 feet. Valley fill deposits are the most significant aquifers in the river corridor. Reported yields from wells tapping these deposits range from 2 to 900 gallons per minute. Upland glacial, alluvial, and colluvial deposits cover much of the upland areas and smaller valleys; measured thickness ranges from 0 to 220 feet. These upland deposits generally do not comprise significant aquifers.

The groundwater resources along the river corridor are derived exclusively from the infiltration of rainfall into suitable aquifers through a process known as recharge. Within the more rugged terrain, only a small percentage of the annual precipitation is made available as groundwater. The remaining rainfall runs off as surface water or is lost through evapotranspiration or evaporation. Faults, fracture traces or fissures within the bedrock will, where present, permit greater penetration of rainfall and a corresponding increase in available groundwater.

8. Water Quality

Surface Water Quality

Water quality standards for the Upper Delaware River are promulgated by the Delaware River Basin Commission (DRBC) and the States of New York and Pennsylvania. Standards are developed cooperatively and therefore, are similar in nature. Existing water quality standards are managed under a non-degradation policy, with the objective of maintaining waters for a wide variety of uses. These include public and industrial water supply (after reasonable treatment), agricultural water supply, recreation, wildlife maintenance and propagation of resident game fish and other aquatic life, spawning and nursery habitat for anadromous fish, and passage of anadromous fish.

The DRBC and the National Park Service monitor the water quality of the Upper Delaware through annual summer limnological studies. The program collects biological, bacteriological and chemical data. In recent years the program's thrust has been the assessment of impacts from reservoir releases and the assessment of water quality and potential pollution sources. Routine water quality monitoring is performed by the States of New York and Pennsylvania.

According to the DRBC 1984 Water Quality Inventory Report, at most locations the data indicate water quality meets or exceeds water quality standards. Most of the Delaware River, above the Delaware Water Gap, has good to excellent water quality. The entire main stem of the Upper Delaware meets federal "fishable and swimmable" water quality goals. Macroinvertebrate data collected in 1981-1983 in the Upper Delaware indicate that stream health is excellent. Table III.2 summarizes water quality monitoring data collected in 1986 during routine state monitoring. These data identify the range of observed values for key parameters for water quality samples collected at Buckingham (near the northern boundary of the river corridor), and Narrowsburg and Matamoras (near the southern boundary of the river corridor).

The Upper Delaware River is classified as "Effluent-Limited" in accordance with the Federal Clean Water Act. Wastewater treatment plants are required to achieve secondary treatment levels. There are approximately ten minor point sources with federal permits under the National Pollution Discharge Elimination System (NPDES) discharging into the river, including municipal treatment plants, camps, schools, and small industrial facilities. Since 1981, a major accomplishment has been the completion of sewerage and treatment facilities for Hancock, New York. Prior to completion, raw sewage including hospital wastes was discharged untreated. Based on information from the U.S. Environmental Protection Agency, the New York Department of Environmental Conservation, and DRBC, there are no existing problems with pollution from federally owned or operated facilities within the river corridor.

Non-point sources of pollution are dispersed and diffuse - for example, street washoff that enters streams in urban areas during rain; herbicides, fertilizers, manure and other agricultural by-products; malfunctioning septic and other on-lot systems; leachate from landfills; erosion during

Table III.2
Summary of Water Quality - 1986
As Observed by Routine NPS Sampling Stations

Parameter		Buckingham RM 325	Narrowsubrg RM 290	Matamoras RM 255.2
Dissolved Oxygen (mg/l)	Ave	9.0	8.2	10.1
	Max	9.5	8.6	12.0
	Min	8.4	7.8	8.4
	#	3	2	6
pH	Ave	6.8	7.0	6.7
	Max	7.0	7.0	7.4
	Min	6.75	7.0	6.2
	#	3	2	8
Fecal Coliform (#/100ml)	Ave	202	85	63
	Max	632	196	146
	Min	26	44	10
	#	6	8	7
Specific Conductance (uohms/cm)	Ave	54	63	63
	Max	60	70	70
	Min	50	55	51
	#	6	5	8

construction activities; and many other sources. Non-point sources are generally related to land use and precipitation. Some non-point sources such as construction-related soil erosion are regulated by state programs. The cumulative impact of these sources on the Upper Delaware is not reported to be in violation of water quality standards at this time.

In the summer of 1985, a more intensive water quality monitoring program was conducted on the Upper Delaware by the Delaware River Basin Commission and the National Park Service. Twelve locations on the main branch of the Upper Delaware and 38 tributaries were sampled.

Findings of this intensive testing program in 1985 indicate that most study area tributaries and Delaware River locations continue to have good to excellent water quality. The 1985 data collection program coincided with a period of less-than-normal precipitation and reduced flow releases from the three New York City reservoirs. The impact of these circumstances was felt on the water quality of the Upper Delaware. Water quality was visually degraded due to increased aquatic plant growth (algae, rooted plants and periphyton). The reasons for the increased plant activity are the lack of spring nutrient/sediment flushing, the slower stream velocities and the greater amount of river bed exposure to sunlight penetration. This increased plant activity is believed to be responsible for the apparent greater amounts of river foam and films observed during summer monitoring. In addition, dissolved oxygen concentrations in the river generally were at saturation or greater than saturation. Extremely high super-saturation was observed on numerous occasions, including values greater than 150%. The effect was most noticeable in the upper reaches of the Upper Delaware and was, as expected, accompanied by high pH values, which occasionally violated stream standards. Concern about possible drops in dissolved oxygen during evening hours led to night time measurements of dissolved

oxygen in late August. The sampling indicated that D.O. was not decreasing to values below stream standards, but the possibility cannot be discounted at other locations and dates. In general, however, it is believed that the drought-related impacts were more visual than of serious water quality concern.

Continuing regular testing of the Upper Delaware by the NPS in 1986 continued to show that river and tributary areas have no water quality problems. Exceptions are Little Equinunk Creek, which appears to be impacted by streams flowing through agricultural areas, and Callicoon Creek within the hamlet of Callicoon. Both conditions are only minor problems. The latter may be responsible for the higher than normal fecal bacterial levels observed at the Callicoon Access Area on the New York side of the river.

Groundwater Quality

In general, the groundwater quality of the Upper Delaware River Basin is quite good, and well within the drinking water standards established by EPA. Table III.3 is a compilation of groundwater quality data from the Delaware River Basin Commission. To summarize this data, groundwater obtained from Pleistocene unconsolidated deposits contains considerably smaller amounts of dissolved solids than most bedrock formations. Quite often, the quality of this unit partially reflects that of the underlying bedrock. Groundwater derived from the Pleistocene deposits is generally "soft" and usually neutral to slightly acidic. The specific conductance is low, indicating the low dissolved solids content. Total dissolved solids (TDS) are approximately 100 mg/l, and levels of bicarbonate are among the lowest in the study area. Iron and manganese concentrations generally pose no significant problems, and the sulfate levels are relatively low, consistent with many of the bedrock formations.

Table III.3
Chemical Quality of Groundwater
The Upper Delaware River Basin

Simplified Stratigraphic Unit	Specific Conductance (umhos/cm)	pH (units)	Bicarbonate (mg/l)	Nitrate-Nitrogen (mg/l)	Hardness (mg/l)	Calcium (mg/l)	Magnesium (mg/l)	Sodium (mg/l)	Potassium (mg/l)	Chloride (mg/l)	Iron (mg/l)	Manganese (mg/l)	Dissolved Solids (mg/l)
<u>PLEISTOCENE</u>													
Mean	210	6.8	51	1.56	66.3	19.3	4.3	5.0	0.9	7.2	0.29	0.07	119
No. of Samples	11	34	25	28	42	22	17	15	13	48	37	19	27
Mean Median	154	6.8	27	0.80	48	13.0	2.9	3.8	0.7	4.0	0.11	0.01	94
No. of Samples	11	34	25	28	42	22	17	15	13	48	37	19	27
Range	44-475	5.8-8.1	6-232	0.0-5.8	13-270	3-74	1.2-11	1.0-18	0.0-2.6	0.6-58	0.01-2.0	0.0-1.0	28-367
<u>CATSKILL</u>													
Mean	141	6.2	44	0.81	55	11.3	2.6	28	0.5	27	5.80	0.10	254
No. of Samples	29	76	27	78	77	27	27	25	14	97	96	84	19
Mean Median	111	6.7	31	0.61	53.2	8.2	2.4	6.3	0.6	3.2	0.2	0.03	112
No. of Samples	33	96	31	98	97	31	31	29	18	117	116	88	23
Range	34-958	6.0-8.3	8-148	0.0-6.7	15-152	2.9-28	0.9-9.6	0.1-87	0.0-1.3	0.6-800	0.01-8.4	0.0-1.3	2b-1400

Source: Special Groundwater Study of the Upper Delaware River Basin - Volume I. Prepared by R.E. Wright Associates for the Delaware River Basin Commission.
No date.

The primary bedrock unit in the Upper Delaware, the Catskill Unit, has excellent quality water which is low in dissolved solids and hardness. Most chemical concentrations in this unit are significantly lower than those encountered in other bedrock units of the Upper Delaware basin. Specific conductance is low to moderate and, occasionally, high levels of dissolved iron are reported. The wealth of water quality information for this unit throughout the study area documents the ability of the Catskill to supply good quality water. Groundwater contamination due to man's activities is slight in this unit due to the sparse population.

Incidents of groundwater contamination in the Upper Delaware have been almost entirely minor in nature -- lower level contamination such as salt storage, and gasoline and oil spills or leaks. The unconsolidated deposits of the river corridor are susceptible to contamination due to their high permeability. Groundwater contamination is a concern at the Cortese Landfill located in the Town of Tusten, New York. The landfill is situated at the base of a cliff approximately 900 feet from the river and 1500 feet downstream from the water supply well for the town of Tusten. Over a nine month period in 1973, hazardous and toxic wastes were reported to have been dumped or buried at the site. The landfill, which was closed in July, 1981 is low on the National Priorities List for clean up under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA; also known as Superfund).

Ongoing studies of surface and groundwater quality in the area immediately surrounding the landfill have been conducted since 1980 by the New York State Department of Environmental Conservation. Research has also been conducted by Pennsylvania State University for NPS documenting qualitative changes in macrobenthic and fisheries communities which may be associated with the landfill. During the fall of 1984 and spring and summer of 1985, macroinvertebrates and fishes were collected. Preliminary testing results

at this time are not conclusive, although a decrease in the total number of macroinvertebrates present at some testing stations below the landfill was noted between sampling periods of May 1985 and June 1985. When data collected at the station immediately below the landfill are compared to data collected upstream, there are no major differences.

Whole fish samples were collected for testing for the presence of various inorganic and organic pollutants which might be associated with the landfill. Preliminary data is available on metals and PCBs in the samples. None of the data suggest a significant bio-accumulation of any contaminants. Concentrations are generally similar for the sampling stations above, adjacent to and below the landfill. Information on various organics is presently being analyzed.

9. Vegetation

The majority of the river corridor (73%) is heavily forested with a mixture of evergreen and deciduous trees. A wide variety of vegetative communities exist within the nearly 42,000 acres of woodland. These range from the dominant oak species through sugar, maple, hemlock and mixed hardwoods to the understory species of dogwood, sassafras and hornbeam. Shrubs include viburnum and spicebush. Past human actions -- fire, timbering practices, quarrying, settlement and agriculture -- have all had a marked influence on the present vegetation of the area, favoring certain species over others.

The combination of closed-canopy forest and open agricultural landscape in the river corridor produces a varied botanical resource. Pastures, croplands, and farmsteads create the forest "edges" and open spaces that maintain a diversity of plant species. The regional vegetative succession begins with herbs that include the tall grasses, goldenrod, and ragweed, and continues with initial woody invaders such as red cedar, gray birch, aspen, and sassafras that provide good habitat diversity for the corridor's wildlife population.

Along the riverbanks and on the islands, young woodland trees, such as sycamore, silver and red maples, basswood, elm, ash, cottonwood, and a variety of willows are present. Shrubs and understory plants include alder, spicebush, sumac, button bush, and elderberry. At higher elevations mixed hardwoods, oaks, evergreens and young woodland trees are all found. The understory includes rhododendron and mountain laurel along the moist slopes of ravines. Ferns grow along the riverbanks and on rocky outcroppings. Wildflowers and herbs include purple loosestrife, day-lily, may-apple, Indian pipe, wild bergamot, monkey flower, pickerel weed, solomon's seal, rattlesnake plantain, and cardinal flower.

Because much of the lowland within the river corridor is under cultivation or in pasture, agricultural crops, pasture grass, and clover dominate the river floodplain. Small numbers of softwoods, such as pine and spruce trees, are also found in the floodplain.

Upland abandoned fields have been taken over by initial woody invaders and pitch pine. Many of the woody species provide browse for deer. A few scrub oak harrrens appear on burned-over land with thin, poor, acid soils.

According to the U.S. Fish and Wildlife Service and two separate studies conducted by the New York Natural Heritage Program and the Morris Arboretum in Philadelphia no extant populations of federally listed endangered or threatened plant species are found within the river corridor.

The Pennsylvania study, published in August 1985, was conducted by the Morris Arboretum of the University of Pennsylvania for the National Park Service. The study identified one or more populations of six Pennsylvania special concern species in or near the Upper Delaware corridor. Of greatest significance was the discovery of two extant populations of Chamisso's miner's-lettuce (Montia Chamisso), along the northern section

of the river. The river corridor is the only location in the state of Pennsylvania where this plant has been observed. Other rare species include the prostrate sand cherry (Prunus Pumila var. depressa) checkered rattlesnake plantain, (Goodyera tessellata), prickly pear cactus (Opuntia humifusa) and roseroot stonecrop (Sedum rosea). These species are considered potential candidates for state designation by the Pennsylvania Department of Environmental Resources, however, there has been no formal action to date.

The New York Study, presently being conducted by the New York Natural Heritage Program for the National Park Service, is scheduled for completion in 1987. A draft report identified one or more populations of three New York rare plant species within the river corridor, as well as several rare natural communities. The rare species located include the river birch (Betula nigra), Great St. Johns Wort (Hypericum pyramidatum), and sand cherry (Prunus pumila var. depressa). These species are considered potential candidates for state recognition, however, no formal action has been taken.

10. Wildlife

The Upper Delaware River corridor contains diverse habitats that support abundant wildlife populations. In addition to the dense forest cover, farming practices have introduced pioneer plant species and have provided pasture grasses and crops that enhance the wildlife food supply. Of the 50 species of animals observed in the corridor, white tailed deer are a principal wildlife resource, ecologically and recreationally. The river valley provides some natural deer wintering areas, which are important to the maintenance of deer populations.

Beaver, raccoon, muskrat, mink, red fox, river otter and gray fox are also found in the region. Pike County, Pennsylvania, hosts one of the highest

Eastern Black Bear populations in the state. Other mammals found throughout the corridor include cottontail rabbit, gray squirrel, varying hare, and woodchuck. New York's Department of Environmental Conservation has identified several locations in the river corridor as being critical habitat areas for the timber rattlesnake, a species classified as threatened in that state.

The river corridor hosts large numbers of waterfowl and waterbirds in the wooded riverside habitats as part of the Atlantic Flyway. Approximately 200 species of birds have been identified within the river corridor, including the federally designated endangered bald eagle. According to wildlife biologists, the bald eagle is a common migrant along the river and winters along the river.

During the past 15 years, wild turkey populations have increased considerably. Extensive populations of ruffed grouse are found along the river corridor. The river and adjacent uplands provide nesting habitat for the mallard, black duck, wood duck, American merganser, several hawk and owl species, and many passerine species. Turkey vultures and ospreys are present in the region.

According to the U.S. Fish and Wildlife Service there are no federally listed threatened or endangered animal species that live year round or that breed in the Upper Delaware River corridor. However, there are two federally listed endangered bird species that visit the area, the bald eagle (Haliaeetus leucocephalus) and the American peregrine falcon (Falco peregrinus). There is no listed critical permanent habitat for the bald eagle within the river corridor (USFWS, 1985). According to the New York State Department of Environmental Conservation, eagles use the area year-round, ospreys are also found in the area from spring to fall. Although wintering activities do occur, the peregrine falcon is unlikely to winter in the area and only occasional migrants have been noted.

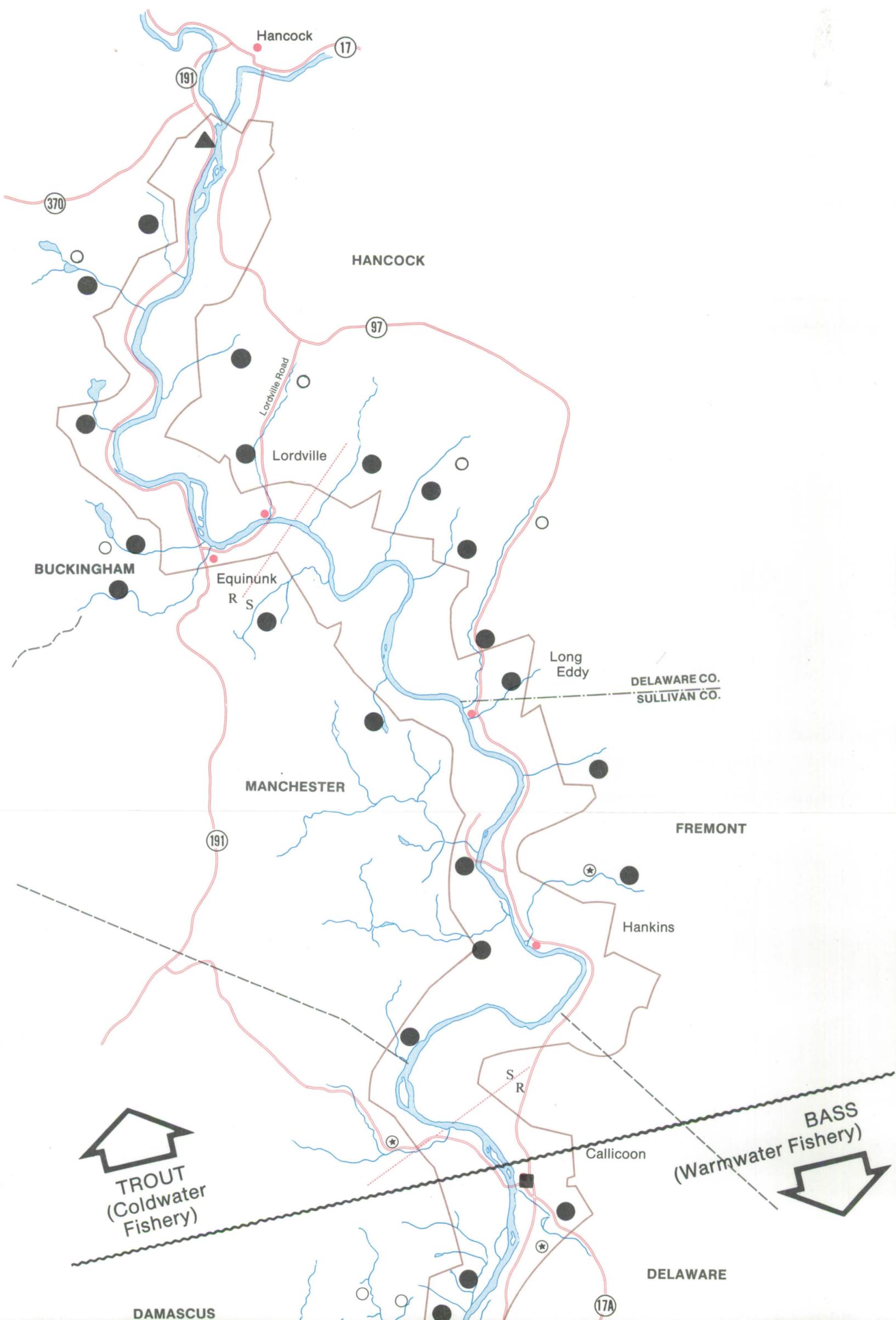
The major area of concentration in New York for the bald eagle is centered in Sullivan County, outside the river corridor. The area near the reservoirs associated with the lower Mongaup River and the Upper Delaware River supports up to 50 bald eagles between November and March each year and is one of the most significant bald eagle wintering areas in the northeast United States. (NY DEC, 1983) The general Hawks Nest area also provides non-nesting habitat for the bald eagle. The corridor is also used regularly during the summer months by eagles from the south, probably nesting in Florida. No bald eagle nests occur within the river corridor; the area is used exclusively for non-nesting survival activities.

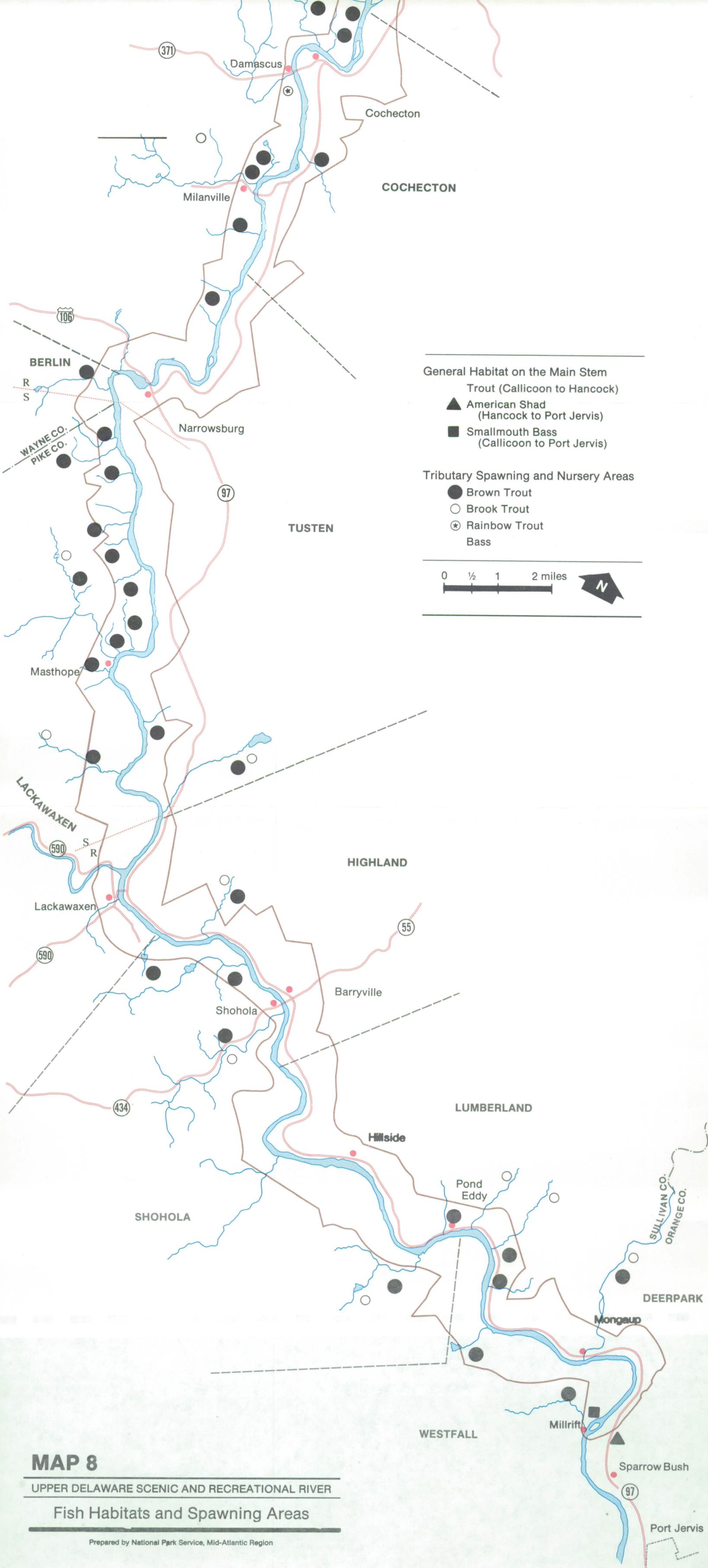
11. Fisheries

The Upper Delaware's consistently high water quality provides habitat to support diverse and well-balanced biological communities. The upper segment of the river is also unique among large rivers due to its relatively cold temperatures. Since 1967, when large volumes of cold water were first released from the Cannonsville Reservoir, the New York State Department of Conservation reclassified approximately 25 miles between Hancock and Callicoon as a cold water fishery. This stretch supports an abundant self-sustaining population of rainbow trout and brown trout, offering some of the finest trout fishing in the Northeast. Key trout spawning habitats are found in almost all of the upper tributaries to the Delaware. The 50 miles of warmwater fishery, between Callicoon and Port Jervis, offers habitat to many species, including bass, sunfish, walleye, and fallfish and is well known for its sport fishing opportunities (see Map 8). Bass are also present between Callicoon and Hancock in reduced numbers. Bass spawning habitats are found in the lower portions of the tributaries south of Callicoon.

The Upper Delaware also provides key spawning and nursery habitat for the American shad along its entire length. (See Map III.8.) Many major rivers





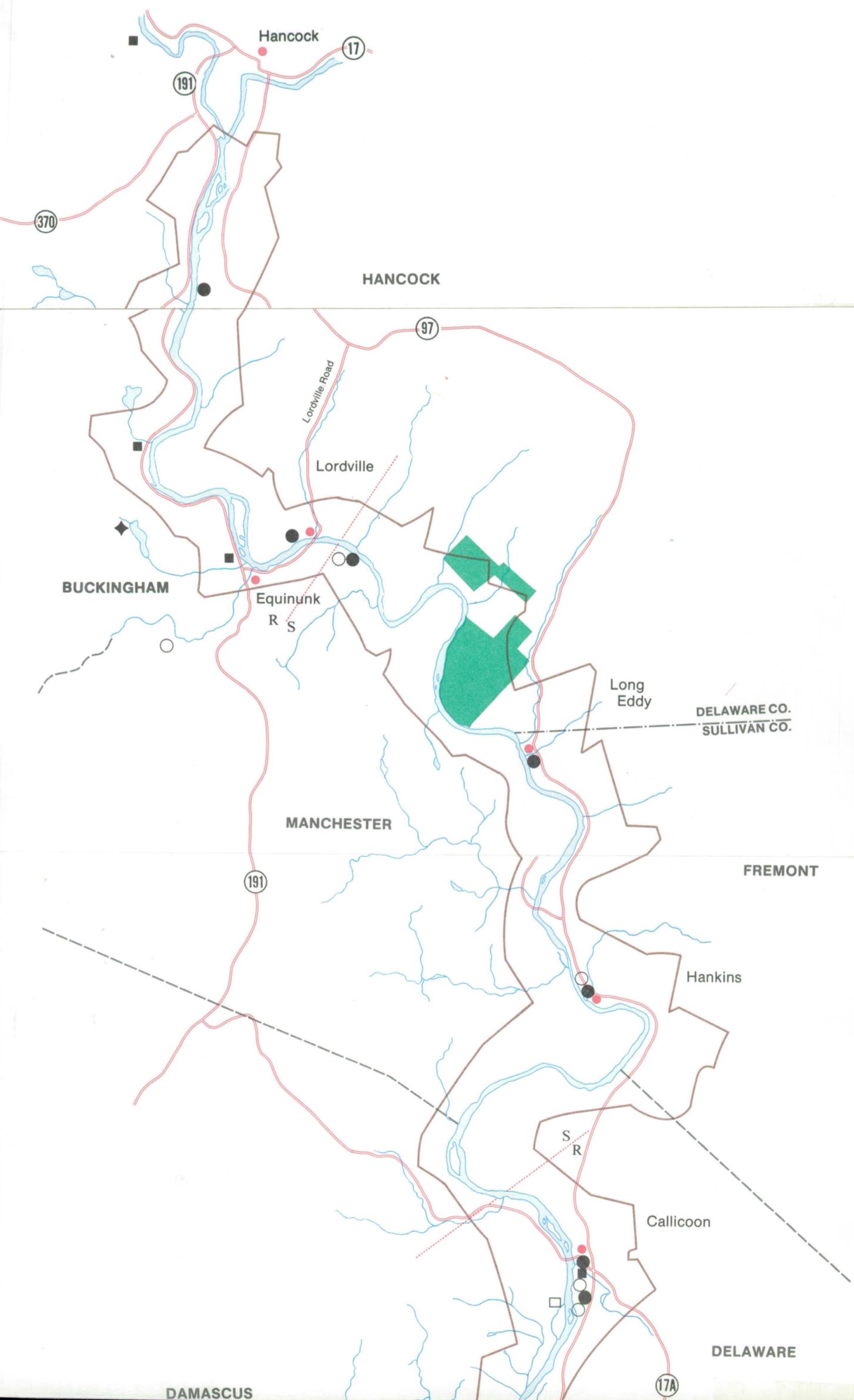


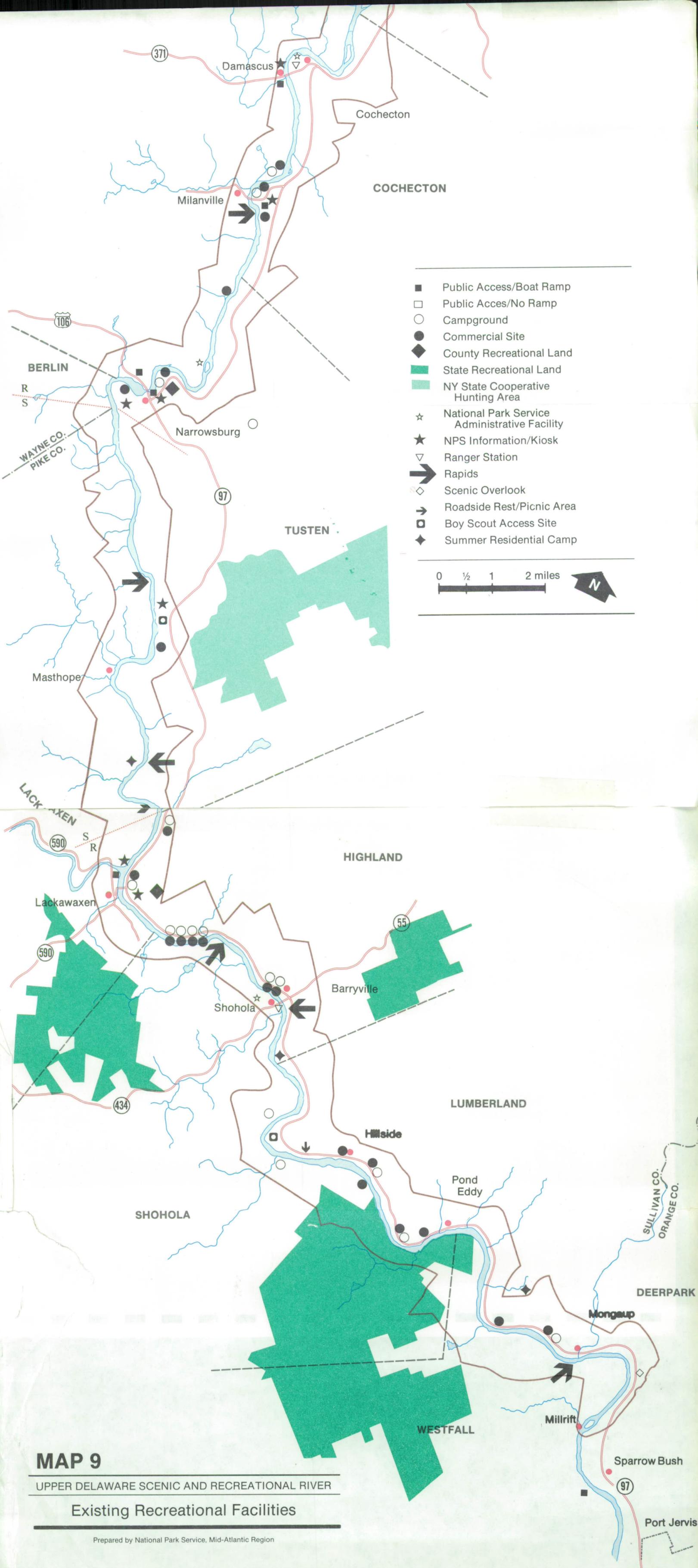
MAP 8

UPPER DELAWARE SCENIC AND RECREATIONAL RIVER

Fish Habitats and Spawning Areas

Prepared by National Park Service, Mid-Atlantic Region





in the Northeastern United States do not permit significant populations of shad to migrate upstream to spawn, due to barriers such as dams and areas of industrial pollution. The Delaware is one exception, with populations of up to 500,000 shad migrating to the upper reaches annually. The majority of spawning occurs above the Delaware Water Gap with concentrations tending to increase in an up-river direction. (Miller et al., 1982) The nursery areas are necessarily at or downstream of spawning grounds due to the downstream dispersal of young shad. The most important nursery areas are located from Belvedere to Hancock and up into the East Branch, and centered near Tusten and Lordville. The shad spawning period runs from mid-April through June. From Port Jervis up into the East Branch the peak of the spawning period usually occurs in June, due to the slower warming waters (Miller et. al., 1982).

American eels are found throughout the corridor, and sustain a commercial fishery during the fall, when mature eels return to the sea to spawn. Presently, there are 4 eel weirs licensed by the states of Pennsylvania and New York on the river.

According to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, there are no threatened or endangered freshwater or marine fish species in the Upper Delaware River corridor.

Temperature is one of the most important water quality parameters affecting shad. It is associated with spawning migration, spawning development and juvenile emigration. Because significant temperature changes may affect other parameters such as dissolved oxygen and the composition of the aquatic environment, an induced change in the river's temperature could be detrimental. The cold water releases from Cannonsville Reservoir have substantially reduced seasonal water temperatures below the dam in the West Branch and in the mainstem of the Delaware. This has resulted in

eliminating the West Branch as a nursery ground for shad. The greatest portion of shad runs enter non-tidal water between 51⁰F-54⁰F. Spawning begins after 54⁰F is reached in the upper river, and the majority of spawning occurs before the river warms to 70⁰F. Optimum egg development occurs at 63⁰F (Miller et. al., 1982).

Under New York's Department of Environmental Conservation (NY-DEC) augmented reservoir releases program, the temperature in the Delaware River is usually kept low enough for the trout fisheries. (Temperatures ranging between 54⁰F and 66⁰F are defined as being optimal for growth and survival for rainbow, brook, and brown trout.) To alleviate periods of high water temperatures which might occur on certain days during the summer, even with the augmented releases, larger reservoir releases (known as "thermal stress releases") are made when necessary to minimize or eliminate thermal stress-days. A thermal stress-day is defined as a day when daily water temperatures exceed 75⁰F for a number of hours or the average daily mean exceeds 72⁰F (NY-DEC, 1983).

However, during the summer of 1985, the reservoir releases were curbed because of drought conditions in the region. A number of trout were reported killed in August, 1985 when the temperature in the river rose to a dangerous level of 72⁰F. According to NY-DEC's Division of Fish and Wildlife, this was the first instance of a kill in the fishery since the last drought in 1981. It is expected to take 3 to 4 years for the trout fishery to restore itself. (NY-DEC, 1985)

According to fisheries biologists from NY Department of Environmental Conservation and from the Pennsylvania Fish Commission, there are no known fisheries areas within the river corridor that are experiencing adverse impacts from soil erosion or sedimentation. A small unknown amount of eutrophication is occurring in the river due to agricultural activities in

the watershed, mostly from dairy farms in Wayne County (Pennsylvania Fish Commission, 1985). There are no known problems from either timbering or residential/commercial development affecting fish habitats.

12. Air Quality

The river corridor area is classified by the U.S. Environmental Protection Agency as exceeding standards for photochemical oxidants and meeting standards for all other types of pollutants. The Upper Delaware region is also listed as Class II (a category which allows moderate deterioration of air quality, not to exceed the national ambient air quality standards), in accordance with the Clean Air Act of 1977. The river corridor meets all the ambient air quality standards established by the State of New York and the Commonwealth of Pennsylvania.

13. Agriculture

Agricultural land is an important resource within the river corridor. It consists largely of fertile, well-drained silt and sandy loam soils which are capable of supporting good cropland and pastureland. There are at present approximately two thousand acres under cultivation, three and a half percent of the corridor (see Map 11).

The continuation of farm operations both in and adjacent to the corridor is also a key element in the retention of the Upper Delaware's scenic rural landscape. Open pastures and croplands provide clearings in the forest canopy which reveal views of the river valley and surrounding hillsides. Aside from their aesthetic values, farmlands are important for soil conservation purposes and contribute to the diversity of vegetation and wildlife habitat.

At the federal level, prime and unique farmlands as identified by the Department of Agriculture, are to be addressed as important natural

resources under the National Environmental Policy Act (NEPA). The U.S. Environmental Protection Agency has considered these prime and unique farmlands as an "environmentally sensitive resource" since 1978. The federal Farmland Protection Policy Act of 1981 (PL 97-98), calls for all federal agencies to minimize the extent to which their programs contribute to the conversion of farmland to other uses.

In New York State, the Agricultural Districts Law (Article 25 AA) allows counties to identify viable farmland resources. Sullivan, Orange and Delaware Counties all contain agricultural districts located within and near the river corridor. Within a district, the power of local or state governments to regulate farm practices or fund community facilities (such as water or sewer lines or other utilities) is limited. The Department of Agricultural and Markets is the lead state agency for the Agricultural Districts Program. In Pennsylvania, the Agricultural Areas Act (Act 43 of 1981) enables local governments to form agricultural areas with the consent of landowners. None have as yet been formed within the river corridor.

In both Pennsylvania and New York, the county soil conservation district offices will assist farmers in the preparation of farm conservation plans and erosion/sediment control plans in addition to recommending sound management techniques. According to district conservationists, there are few problem areas along the river due to soil erosion from cropland. Soil loss from cropland along the river would vary depending on soil types, crops and crop management practices, the slope of the land, and the amount of rainfall, but has been estimated by district conservationists in the 5 Upper Delaware counties to average 5-6 tons/acres/year. Annual soil loss from pastureland ranges from 1 to 5 tons per acre. By contrast, new residential development is estimated to cause soil loss of up to 25 tons per acre per year during construction, declining to an average of 3 tons per acre after revegetation.

D. Recreational Opportunities

1. Introduction

The Upper Delaware Scenic and Recreational River is located in a region with abundant recreation opportunities. Within a day's drive of the river are a number of federally owned recreational sites, including national forests, wildlife refuges, and recreation areas. The closest is the Delaware Water Gap National Recreation Area, managed by the National Park Service and located 8 miles downstream from the Upper Delaware. The waters of the Upper Delaware are used for swimming, canoeing, kayaking, tubing, rafting, and fishing. Public and commercial access points for these activities are located along both sides of the river. Canoeing and fishing are the most popular water-based activities and are the focus of management activities and planning.

Hunting, hiking, backpacking, camping, picnicking, sightseeing, driving for pleasure, cross-country skiing, nature photography and wildlife observation are among the land-based recreational activities enjoyed by residents and visitors to the Upper Delaware Scenic and Recreational River.

The following sections describe the recreation resources and facilities of the Upper Delaware, river use conflicts and projections for future visitor use.

2. Recreational Resources and Facilities

Visitor Orientation

New York Route 97 provides the principal access to the Upper Delaware Recreational and Scenic River, and is a direct and convenient route to locations along the river corridor. Other access routes to the Upper Delaware include U.S. 6, 206, and 209, I-84, NJ 23 and NY 17. PA 191 parallels the northern segment of the river corridor from Hancock to Equinunk. From Damascus to Narrowsburg, Pennsylvania Legislative Route

63027 runs along the river and provides an alternative access route. Township and private roads link developed areas along the river. All of the roads within the corridor show a seasonal fluctuation in traffic volumes.

Traffic can cross the river at seven locations in the corridor, as shown on Map 8. In addition, pedestrian access is currently provided at the Roebling Bridge (Delaware Aqueduct), between Highland, NY and Lackawaxen, PA. This bridge is being restored and will be reopened as a single lane bridge.

Public and Quasi-Public Facilities

The National Park Service's administrative headquarters is located on a two-acre site in Damascus Township, PA, while additional staff are housed in the Zane Grey House in Lackawaxen, PA, under a lease agreement with the owner. In addition, NPS operates two ranger stations: the north district station in Cohecton, NY and the south district ranger station in Shohola, PA.

At present there are twenty-five public and quasi-public (leased or managed by a government agency) facilities in the river corridor, ranging from river access sites to state gamelands and preserves. These sites are listed in Table III.4 and discussed in the following sections.

Visitor Contact Facilities

Visitor contact facilities provide visitors with information relating to the Upper Delaware's history, natural resources and recreational opportunities, and direct visitors to public use areas. A visitor contact facility and bookstore is located at the Arlington Hotel in Narrowsburg, NY, and is operated under a lease agreement between the National Park Service and the owner.

Table III.--4 Public and Quasi - Public Facilities

Location	Type of Use	Emergency Access	Owner/ NPS Use Agreement	General Condition	Level of Use	Support Facilities					
						Trash	Phones	Rest-Rooms	Picnic Table	Parking	Other
Buckingham Township	river access	X	Buckingham Township	fair	occasional	2 X				X	
Buckingham Township	river access	X	PA Fish Commission/NPS	good	frequent	2 X	X	2 X		X	
Hancock-Long Eddy	NYS Forest preserve		NY State			X				X	
Delaware-Callicoon	river access	X	NYDEC/NPS permit	fair	frequent	2 X		2 X		X	
Delaware-Callicoon	river access	X	PA Fish Commission/NPS	poor	frequent	2 X				X	
Cochecton	North District Ranger Station		Private individual/ NPS lease	fair	occasional						limited public use
Damascus	river access, NPS kiosk	X	PA Fish Commission/NPS	fair	frequent	2 X	X	X		X	

Footnotes

1. Recreational sites are open to the general public. Emergency access sites support river management operations and are not open to the general public.
2. Trash cans and restrooms provided on a seasonal basis.
3. Use of this location for river access is by individual agreement with Greater NYC Boy Scout Council. Not open to the general public.

Public and Quasi - Public Facilities, Continued

Location	Type of Use	Emergency Access	Owner/ NPS Use Agreement	General Condition	Level of Use	Support Facilities					
						Trash	Phones	Rest Rooms	Picnic Table	Parking	Other
Cochection-Skinners Falls	river access, NPS kiosk		NYDEC/NPS co-management agreement	good	frequent	2 X	X	2 X		X	
Damascus	NPS Headquarters		NPS	good	occasional						limited public use
Tusten-Narrowsburg	river access, NPS kiosk	X	NYDEC/NPS co-management agreement	good	frequent	2 X		2 X		X	
Tusten-Narrowsburg	Fort Delaware		Sullivan County	good	frequent	X		X	X	X	
Tusten-Narrowsburg	Information Center		Arlington Hotel /NPS lease	good	frequent	X		X			
Tusten-Ten Mile River	river access		Greater NYC Boy Scout Council/NPS	poor	frequent	2 X		2 X		X	
Damascus-Darbytown	river access	X	PA Fish Commission/NPS	fair	frequent	2 X				X	
Lackawaxen	river access NPS kiosk		PA Fish Commission/NPS	good	frequent	2 X	X	X		X	
Highland/Lackawaxen	Roebling Bridge, NPS kiosk	X	NPS	undergoing restoration	frequent	2 X		2 X			

Public and Quasi - Public Facilities, Continued

Location	Type of Use	Emergency Access	Owner/ NPS Use Agreement	General Condition	Level of Use	Support Facilities					
						Trash	Phones	Rest Rooms	Picnic Table	Park- ing	Other
Lackawaxen	Minisink Battlegrounds		Sullivan County Parks, NY	good	frequent	X	X	X	X		
Lackawaxen	PA State Game-lands, (#116)		PA Game Commission	good	frequent						
Lumberland	Roadside rest/picnic area		NY Department of Transportation	fair	frequent	X			X		
Shohola	PA State Game-lands, (#116)		PA Game Commission	good	frequent						trails
Shohola	PA State Game-lands, (#209)		PA Game Commission	good	frequent					X	trails
Shohola	South District Ranger Station		Private individual/NPS lease	fair	occasional						Limited public use
Westfall	PA State Game-lands, #209		PA Game Commission	good	frequent						trails
Westfall	State Forest		PA Department of Forestry	good	frequent						
Deerpark-Hawk's Nest	Scenic overlook		NY Department of Transportation	fair	frequent						pull-offs

Interpretive programs focus on a variety of interrelated subjects such as cultural heritage, natural history, recreational use and environmental education. National Park Service interpreters are stationed along the river at kiosks to inform visitors of river conditions and safety considerations. Five kiosks are operated by the NPS at sites leased from private owners and the states of Pennsylvania and New York, in Damascus, Skinner's Falls, Narrowsburg, Ten Mile River, Lackawaxen, and the Roebing Bridge.

Current NPS staffing levels at the Upper Delaware Scenic and Recreational River include 17 permanent and 29 seasonal personnel. Staff responsibilities include law enforcement on the river and interpretation as well as all related functions necessary to maintain the NPS operation. During peak season weekends the staff patrols the length of the river by boat five times per day.

Recreation Lands

There is a small amount of state, county, and locally owned recreation land within the river corridor as shown on Map 9. New York's Department of Environmental Conservation owns an undeveloped forest preserve a few miles north of Long Eddy, NY, that is available for public use. During hunting season certain privately owned land is available for public use through agreements with the Department of Environmental Conservation. The New York Department of Transportation maintains two sites: a roadside picnic facility in Lumberland and the famous "Hawks Nest" scenic overlook in Deerpark.

The Pennsylvania Game Commission manages two areas, State Game Lands 116 and 209, in the townships of Lackawaxen, Shohola, and Westfall, primarily for forest game species. A forest preserve in Westfall is managed by the Department of Environmental Resources.

County lands in the corridor include the Fort Delaware and Minisink Battle ground Parks, owned by Sullivan County. Each of these sites have hiking and picnicking facilities. The town of Equinunk owns a primitive river access site that is used primarily by local residents.

River Access

River access sites allow recreationists to get in and out of the river at various locations. Most access sites are used for both boating and fishing. Since there are no formally designated swimming sites on the Upper Delaware, access points are often used informally for swimming.

Public river access sites are located on publicly owned lands and allow access to the river at no cost to users. Eight such public access sites in the river corridor were available in 1985. In addition two sites are located just beyond the northern and southern boundaries of the river corridor.

Commercial river access sites are owned or leased by commercial liveries as part of their business operations. Canoe, raft, kayak, and inner-tube liveries operate on the Upper Delaware. A total of 28 commercial river access are located in the corridor. The liveries use public access points as well.

Emergency sites provide law enforcement and emergency personnel with access to problem situations on the river. There are 11 such access sites on the Upper Delaware. Many of these are available only to NPS by agreement with private landowners. Public access sites also serve as emergency access points.

Canoeing

The Upper Delaware is used for all kinds of boating, however, the most popular activity by far is canoeing. The Upper Delaware is canoeable

throughout its entire length, and boasts a total elevation differential of 460 feet, better than six feet per mile, although it is much steeper in some reaches. Class II white water rapids occur in 7 locations. Boating experts have stated that the combination of proximity to major metropolitan areas, high visual quality, and consistent flows due to upstream dam releases make the Upper Delaware one of the finest recreational canoeing rivers in the Northeast.

Ninety percent of the craft on the river are canoes, and of those, 90% are commercial rentals. In the summer of 1985 there were 16 canoe livery businesses operating at 28 locations within the river corridor, up from 13 businesses and 24 sites in the summer of 1980. The typical livery business opens in April and closes in October. Altogether there were approximately 8000 craft available for rent during the summer of 1985.

Data on river use throughout the United States is incomplete, but many boating experts agree that the Upper Delaware receives more recreational canoeing use than any other river in the Northeast, and that it is certainly one of the most popular canoeing rivers in the country. The New York State Department of Environmental Conservation (DEC) estimated that for the period from 1978 to 1982, the annual number of boating trips on the Upper Delaware ranged between a low of 20,500 trips in 1979, and a high of over 59,000 trips in 1980. In 1982, the economic value of recreational boating activities on the river was estimated to be \$12.7 million.

Camping

There were 26 commercial campgrounds within the Upper Delaware River corridor in 1985. Most of these are associated with canoe livery businesses, with the result that 60% of canoeists camp on the river before or after their canoe trip. Campgrounds offer a variety of facilities;

recreational vehicle sites with electrical and water hookups are common. The capacity of campgrounds ranges from 4 sites to 300 sites, with the average being 92 campsites per campground.

There are no formally designated publicly-owned canoe-in campgrounds within the corridor. Informal camping takes place along trails on state recreation lands in New York and Pennsylvania, and on private lands by permission. Camping takes place without permission as well, causing conflicts between river users and landowners.

Fishing

The Upper Delaware is recognized by sportsmen and fisheries biologists as one of the finest fishing rivers in the Eastern United States. It offers opportunities for both cold and warmwater fishing and provides a high quality fishing experience in close proximity to major metropolitan areas. According to the 1976 New York Angler Survey, the Upper Delaware is one of the five most heavily fished river areas in the state. In 1982 it was estimated by NY DEC that there were nearly 60,000 annual angler days for the river area between Hancock and Port Jervis. Since 1978, the estimated fishing days in the 27 mile reach between Hancock and Callicoon have increased by 90%, while the 36 mile reach between Narrowsburg and Port Jervis experienced an increase of 205%. The annual economic value of recreational fishing to the Upper Delaware area has been estimated at nearly \$5,000,000.

Management of the corridor's recreational fisheries is the joint responsibility of New York and Pennsylvania, which regulate fishing seasons and the size and creel limits for game fishes. The inter-state cooperation has resulted in common sportfishing regulations for both states. Each state requires a sportfishing license for anglers, and each state recognizes the other's fishing licenses for anglers in the river, in boats and on the riverbanks.

Hunting

The Upper Delaware region offers some of the best hunting opportunities in Pennsylvania and New York. Wildlife biologists recognize the region as an excellent hunting area because of its combination of diverse habitats, which produce abundant wildlife populations. Large tracts owned by hunting clubs contribute to these healthy populations. New York's Delaware County had the highest deer harvest in the state in 1985, and the highest turkey harvest in the spring of 1985. Hunting also contributes substantially to the economy of the area.

Both hunting and trapping are allowed on both sides of the river on state lands and on many tracts of private lands with the owners' permission, and in accordance with existing state and federal laws and regulations. New York's Department of Environmental Conservation has developed a cooperative arrangement with the Orange and Rockland Utilities, Inc. and the Greater New York Council of Boy Scouts Camp to use 23,640 acres for public hunting. These areas are noted on Map 9.

Much of this area lies within the towns along the river, but only a small portion is actually within the Upper Delaware river corridor. The Pennsylvania Game Commission manages some 10,000 acres of state game lands in three corridor townships for annual harvests of game species, principally black bear, deer, turkey, grouse, woodcock, waterfowl, squirrels and rabbits.

3. Recreation Use Issues

A significant degree of conflict exists between riparian landowners and river recreationists. A majority of landowners along the river have posted their land but must still contend with problems such as trespassing, invasion of privacy, vandalism, littering, and destruction of vegetation caused by boaters coming to shore, and in some cases, pedestrians (hikers) getting to the river.

According to a user survey conducted in 1984 (Conference of Upper Delaware Townships, 1984), river users complained of an inadequate number of facilities, particularly restrooms, in the corridor. This leads to trespassing on private property and problems between river users and landowners.

Although the Delaware supports numerous water based activities and is close to highly populated areas, conflicts between uses did not arise as a major issue or problem. The stretch of river below Callicoon which experiences the heaviest use would appear to be the likely location of user conflicts should they occur to any great extent in the future.

4. Visitor Use

The New York State Department of Environment Conservation performed a ten year study of visitation on the Upper Delaware. From 1972 through 1982 the DEC conducted an annual aerial census consisting of an overflight of the river by single engine aircraft on two weekdays and two weekend days each month from April to October. Counts were made of shoreline and boat anglers and of recreational boats. Estimate of visitor use calculated (Table III.5). These estimates have unknown large errors and should be taken as conservative indices of usage.

The visitor use estimations depicted in the table fluctuate over the 10 year period and do not reflect annual increases experienced at similar areas. The fluctuations in recorded river-related visitation can in part be attributed to national economic conditions such as rising gasoline prices and fuel shortages, and to regional weather and water flow conditions. The DEC figures account for river users only, as opposed to land-based visitors.

The earliest visitor use projections for the Upper Delaware were based on population growth, trends in leisure time activities, and the proximity of

Table III.5

NY-DEC: Estimated Visitation to the Upper Delaware River (1978-1982)

Boaters	81,210	40,520	116,674	73,672	95,794
Angler Days	23,765	20,675	28,830	46,520	59,005
Total Visitation	104,975	61,195	145,504	120,192	154,799

1979 estimates do not include the months of August through October due to aircraft malfunction. Sources: "New York Reservoir Releases Monitoring and Evaluation Program on the Delaware River," New York Department of Environmental Conservation Technical Report 83-5, September 1983.

Table III.6

Total Counted and Projected Visitation at the Upper Delaware River

Counted	1981	1982	1983	1984	1985
Total Visitation	151,218	107,288	225,959	162,490	157,711
Projected	1990	1995	2000	2005	
Total Visitation	195,300	221,000	250,000	282,900	

Source: National Park Service

the area to major population centers. NPS experience at the Delaware Water Gap, which experienced steady growth in the 1970's, also influenced the projections. However, actual figures from the Upper Delaware show fluctuations, rather than a steady trend toward growth.

National Park Service statistics (see Table III.6) are based on visitor counts and show that visitation peaked in 1983 when 225,959 visitors were recorded, but declined in 1984 and 1985.

Starting with a base of 151,218 visitors in 1980, visitor use is expected to grow at the Upper Delaware, but at a very moderate overall annual rate of 2.5%. This rate would result in 282,900 annual visitors by the year 2005 (see Appendix C for visitation projections).

E. Historic and Archeological Resources

1. History

The Upper Delaware valley is believed to have been inhabited for at least 10,000 years. The patterns of settlement in both prehistoric and historic times have largely been shaped by the natural environment. The exploitation of natural resources by successive waves of settlers has in turn marked this environment.

When the first European settlers entered the Upper Delaware River area, it was inhabited by a group of Lenape or Delaware Indians who called themselves the Minsi. Historians differ in defining the territory of the Minsi, but it is generally thought they controlled the lands downstream from the mouth of the Lackawaxen River and the Iroquois lived in upstream areas. There was hostility between the Lenape (parent nation of the Minsi) and the Iroquois.

Dutch traders from Fort Nassau (Albany, New York) and Swedish settlers may have entered the valley in the early 17th century. Other European settlers

may have moved upstream from the Minisink (Port Jervis) area as early as 1730. More substantial settlement began with the Connecticut Yankees known as the Delaware Company, who arrived in the 1750's, basing their land claim on the contention that Connecticut had been granted lands west of the Delaware in the 17th century. (These lands were also claimed by William Penn, as well as the Indian nations.) Land claim problems also existed on the east side of the river, where New York and New Jersey claimed overlapping segments; these disputes were only resolved by litigation after the American Revolution.

The first substantial settlement of the Delaware Company in the 1750's was at Cushetunk (Cochecton), where Company frontiersmen and settlers from New York and New Jersey built log cabins, saw mills and grist mills, and began rafting logs downstream to Philadelphia. Many settlers apparently tried to remain neutral at the beginning of the Revolution, but the majority eventually allied themselves with the Patriot (Whig) side.

Several years after the war began, serious problems arose with Indian raiders, as the Iroquois, traditional enemies of the Lenape, were persuaded to join forces with the British to terrorize settlers on the frontier. As a result of the raids, most settlers fled the upper valley. One of the bloodiest battles of the Revolution, in 1779, took place near Minisink Ford, pitting militiamen and local volunteers against a party of Tory and Indian raiders, who won a decisive victory.

After the Revolution, repopulation and rebuilding of the valley settlements occurred slowly, stalled by confusing and inactive land claims. A few communities appeared along major transportation routes. The 18th and 19th century settlers were Connecticut Yankees and a few Dutch. Irish laborers were brought in to build canals and railroads, and the 1860's brought an influx of German immigrants, along with smaller numbers of Finns and Ukrainians, drawn by advertisements of farmland for sale.

The new transportation systems of the late 18th and 19th centuries--turnpikes, canals and railroads--largely determined the patterns of settlement in the valley. The Newburgh-Cochecton Turnpike was completed in 1811; beginning on the Hudson, crossing the Delaware, and ending at the Susquehanna, it provided a key trade and immigration route to the west, and established Cochecton as the major community of the Upper Delaware valley.

The canal era in the valley began with the completion of the 108-mile Delaware and Hudson Canal in 1828, linking Honesdale, Pennsylvania, and Kingston, New York. The canal carried anthracite from the coal fields of Pennsylvania's Moosic Mountains to New York, and followed the Delaware from Lackawaxen to Port Jervis. During the 1850's the canal transported as much as a million tons of cargo a year. However, by the 1890's increased competition from the railroad brought about its decline. The valley's first railroad line, the New York and Erie Railroad, opened in 1851. The railroad connected the Hudson River to the Great Lakes, with 12 stations along the 73 miles of its Delaware division. Unlike the canal, the railroad could operate year-round. It brought about the increased export of lumber, stone and agricultural products from the valley, while formerly scarce commodities, as well as tourists and commercial travelers, flowed in.

A number of extractive industries played key roles in the economic development of the valley. Timber rafting was a focal point of the valley economy as early as the 1760's, and continued to play an important role until suitable forests were exhausted at the beginning of the 20th century. Tanneries were major industries from the 1850's through the 1880's, until the hemlock groves, the bark of which supplied tannin, were depleted. Around this time, quarrying of bluestone and other building materials emerged as an important industry. John Fletcher Kilgour, the "Bluestone King," controlled much of the valley's industry, at one time owning 150

quarries and employing over 500 workers. Long Eddy, Kilgour Sour, Pond Eddy and Parker's Glen became the valley's major quarrying centers, from which bluestone was shipped to New York City, Jersey City, and elsewhere, as paving blocks, curbs, and decorative stonework. Quarrying remained important until the 1920's and 30's, when cement and southern granite largely replaced bluestone as a building material.

Another extractive industry, the so-called acid factories, flourished from about 1880 until 1920. Hardwoods like cherry and ash, which could not be floated downriver, were used to produce charcoal, wood alcohol, and acetate of lime. The acid factories, which employed substantial work forces at Milanville and Long Eddy, declined as hardwood stands were depleted, and as petroleum-based synthetics were developed.

Tourism, which began with the opening of the railroad, was the most enduring of the 19th century industries. Entrepreneurs soon realized the valley's potential as a summer retreat for New Yorkers, and began building hotels in the villages, while farmers took in boarders, a custom which had developed into an important industry by the 1870's.

Boardinghouses and hotels throughout the region lost much of their popularity during the depression of the 1930s, although some visitors continued to come to the area to hunt, fish, canoe, and enjoy the scenery. By the 1970s, canoeing and camping had both developed into sizable commercial operations. Canoe liveries and campgrounds appeared along the river, drawing increasingly heavy river usage in the spring and summer.

2. Important Sites

The historical remoteness of the Upper Delaware area from urban centers as well as the economic decline it experienced in this century, has helped to preserve many of its historic buildings, sites and structures. Many

surveys of individual towns and counties have been completed, but the Cultural Resource Survey (April 1983) prepared by the State University of New York at Binghamton for the National Park Service, was the first attempt to systematically document and evaluate the archeological and historic resources of the entire Upper Delaware area.

Archeological Sites

The survey team identified archeological sites through a partial field survey, a literature review, an inventory of private collections, and interviews with local informants, to arrive at an inventory of 437 archeological "loci" (including sites where artifacts had been found or observed in the past by local informants). Of this number, 358 are "open sites," characterized by the presence of scattered artifacts or debris found on the surface of cultivated fields or eroded areas. These sites tend to be found in three areas: 1) alluvial fan deposits at the confluences of tributaries and the river; 2) alluvial fan deposits where the valley side slopes meet the floodplain; and 3) floodplain terraces along the river, especially in the vicinity of alluvial fans.

Thirty-one of the sites were rock shelters -- slight overhangs of rock ledges that were often used as temporary shelters or habitations. These sites generally contain more artifacts, in a better state of preservation, than do the open sites.

The area between Hankins and Narrowsburg (river miles 20 to 40) yielded about half of the total number of sites. This can be attributed to the preponderance of relatively level floodplain terraces in this part of the valley, the present-day cultivation of which has turned up large numbers of artifacts.

Affected Environment

The Cultural Resource Survey found that 17 of the 437 sites had some potential significance, and recommended that they be evaluated for nomination to the National Register of Historic Places. One site, the Dunn site near Hancock, has already been determined eligible for inclusion in the National Register, as have two sites not mentioned in the survey, the Van Schoick and Stirna sites in Narrowsbury, which were determined eligible in 1982.

The rock shelter at Ten Mile River in Tusten was completely excavated by the New York State Museum and Science Service in 1969-1970. This site and adjacent lands (approximately 40 acres) are proposed for acquisition and interpretation by NPS in the proposed River Management Plan.

Historic Resources

Many of the corridor's historic resources relate to the 108-mile Delaware and Hudson Canal, five elements of which have been designated as a National Historic Landmark. One of these elements is the Delaware Aqueduct, commonly known as the Roebling Bridge, between Lackawaxen, PA and Minisink Ford, NY. The aqueduct, designed by John Roebling, has also been individually recognized as a National Historic Civil Engineering Landmark. Owned by NPS, the aqueduct is currently undergoing reconstruction, and will be re-opened to light vehicular traffic in the future. Both the aqueduct and the Lordville Bridge have also been listed on the Historic American Engineering Record. Remnants of two of the 18 canal locks within the river corridor (Locks 54 and 72) are proposed for management and interpretation by NPS.

Three individual buildings in the corridor are listed on the National Register of Historic Places: the Zane Grey House in Lackawaxen, the Old Arlington Hotel and the Kirk House in Narrowsbury. One building in Cohecton, the Schultz Round Barn, is listed on the New York State Register

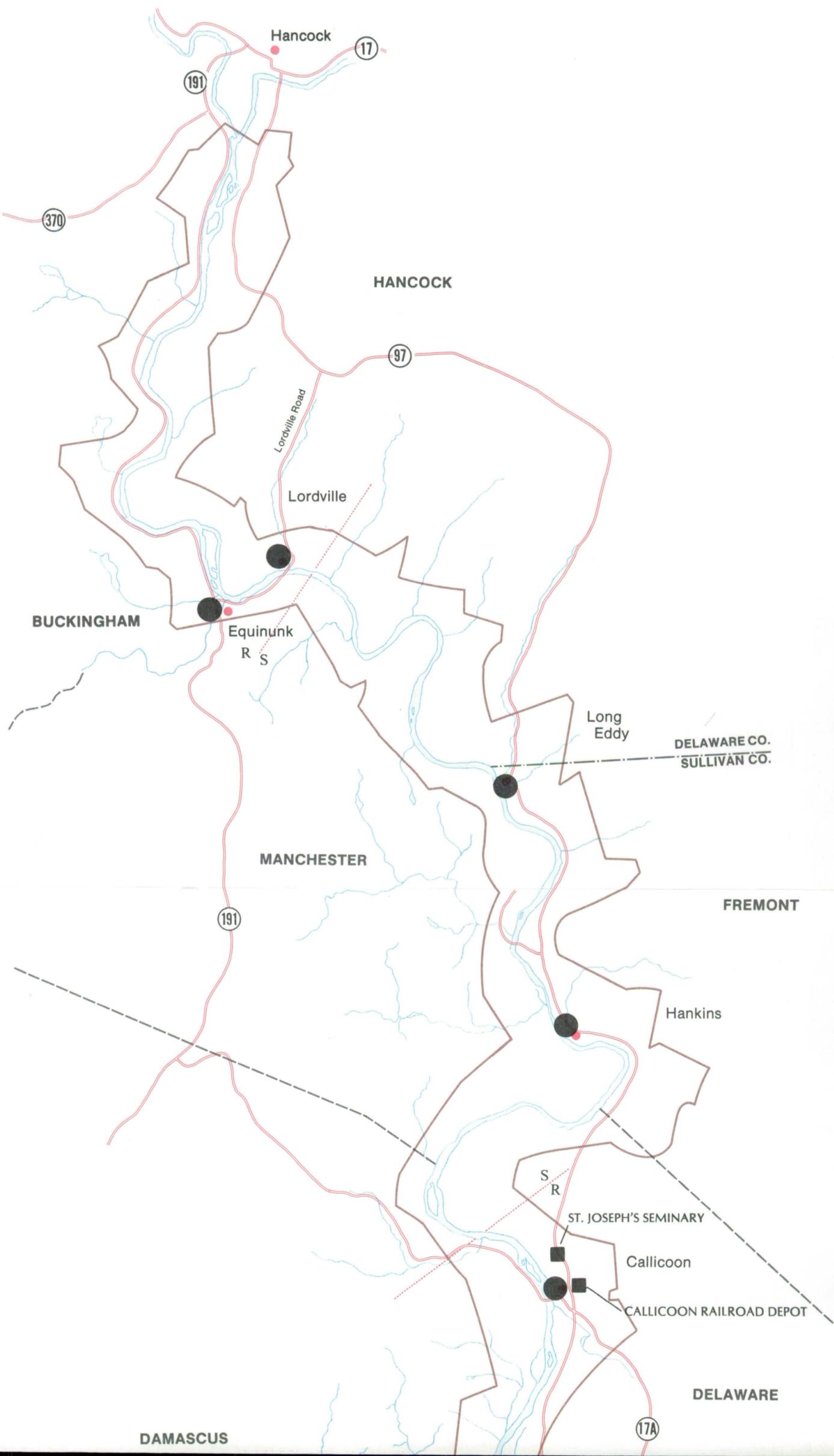
of Historic Places (see Table III.7). The toll house on the New York side of the Delaware Aqueduct will be documented as a National Register structure of local significance. National Register sites, hamlets with concentrations of historic buildings, and sites proposed for management or acquisition by NPS or other government agencies/private groups are shown on Map 10.

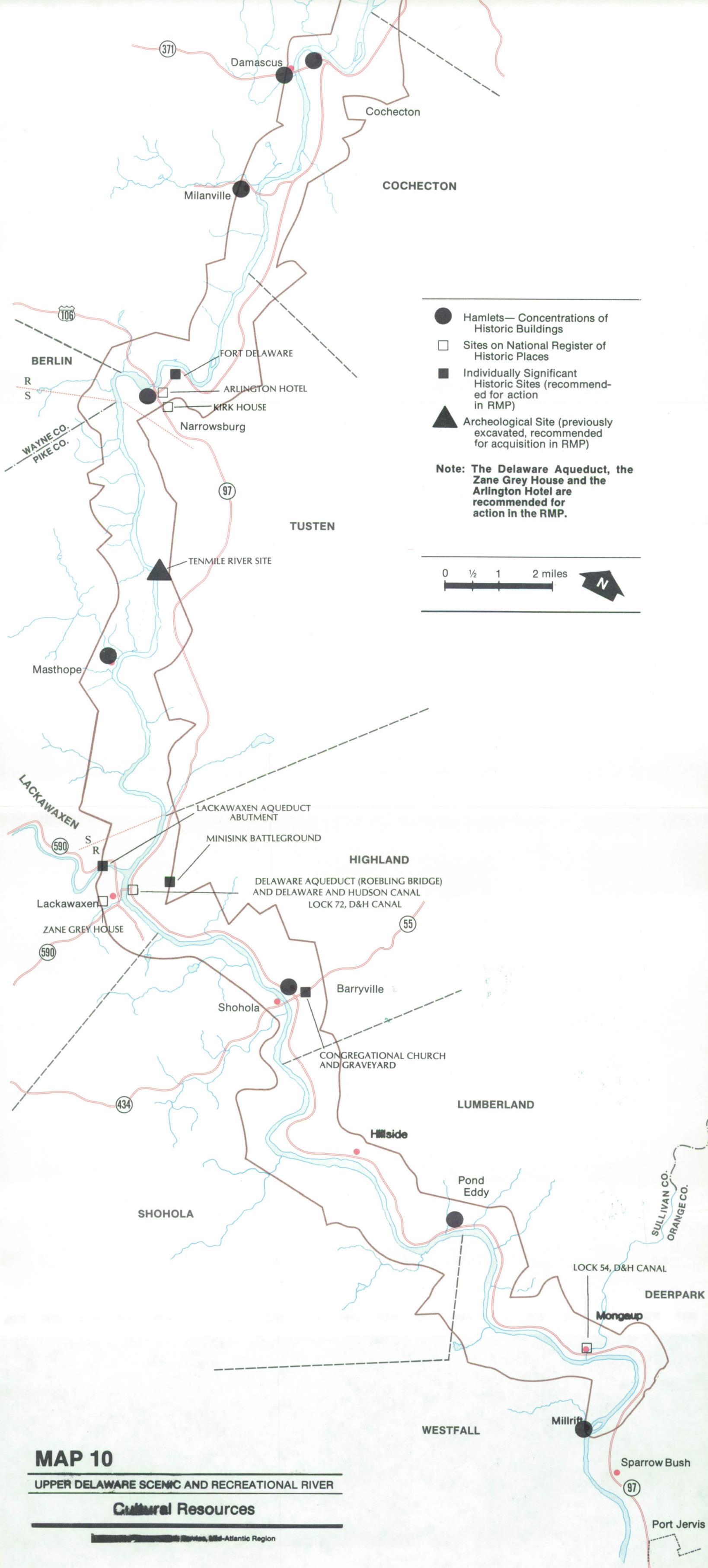
Historic architectural resources within and around the corridor were inventoried through the Cultural Resource Survey. The survey methodology included a literature search, general architectural inspections and interviews with residents, and more detailed survey, documentation and evaluation of selected sites. The survey inventoried 158 of the approximately 3000 standing structures and buildings in the area. (It should be noted that the survey took in a wider corridor than is included in the proposed River Management Plan; this corridor contains approximately 2700 buildings.) Seventy-seven of these structures were recommended for further study in order to determine their eligibility for National Register nomination.

Historic engineering and industrial sites were also surveyed as part of the Cultural Resource Survey. Sites were identified through a literature search, field-verified, and briefly documented. Of a total of 86 sites surveyed, the majority were archeological, involving surface and buried remains. Most sites related to the transportation systems and industries once important to the valley's economy: the canal and railroad, bluestone quarries, tanneries, sawmills, gristmills, and other hydropowered industries.

The Cultural Resource Survey recommended a number of potential historic districts for further study, including historic districts in the villages of Equinunk, Callicoon, Damascus and Cohecton, and the Stockport







- Hamlets— Concentrations of Historic Buildings
- Sites on National Register of Historic Places
- Individually Significant Historic Sites (recommended for action in RMP)
- ▲ Archeological Site (previously excavated, recommended for acquisition in RMP)

Note: The Delaware Aqueduct, the Zane Grey House and the Arlington Hotel are recommended for action in the RMP.



MAP 10
UPPER DELAWARE SCENIC AND RECREATIONAL RIVER
Cultural Resources

settlement. An historic industrial district at the Tusten (Ten mile River) settlement and two districts representing bluestone quarrying, one at Pond Eddy and one at Kilgour Spur, were also proposed.

Two additional 1981 surveys have identified a number of other sites. In one survey, nine potential historic districts in the Sullivan County portion of the river corridor were identified (USD1, NPS, 1981). This survey also recommended 19 churches (including the St. Joseph's Seminary), railroad stations, hotels, and residences in Sullivan and Pike counties, for further investigation. The second survey noted structures in Equinunk, Lordville, and Masthope with potential National Register significance (Juviler, 1981b). A third survey of historic industrial and engineering sites identified five sites with National Register significance. These included the Stockport Creek complex, the Cornelius Middough sawmill in Millrift, the R. Hankins gristmill ruins, the Kilgour Spur bluestone quarrying complex in Hancock, and the Lordville suspension bridge. (Juviler, 1981a).

Ongoing research has focused on the identification and documentation of these and other historic sites within the corridor. Several New York towns, counties and historical societies, with the assistance of the National Park Service, are currently inventorying the historic resources of Delaware and Sullivan Counties, and have identified several potential historic districts and individual sites which may be eligible for listing on the National Register as a Multiple Resource Area. This type of listing includes historic resources that are scattered over a wide area, but are linked by common themes. Additional ethnographic documentation of community lifeways was suggested and will be conducted.

Table III.7: Historic Architectural Sites

<u>Site Name and Location</u>	<u>National Register</u>	<u>State Register</u>	<u>Management</u>
Zane Grey House Lackawaxen, PA	X	X	private/leased in part by NPS
Arlington Hotel Narrowsburg, NY	X	X	private/leased in part by NPS
Kirk House Narrowsburg, NY	X	X	private
Schultz Pound Barn Cohecton, NY	-	X	private
Delaware Aqueduct Lackawaxen, PA - Highland, NY	X	X	NPS

F. Scenic Resources

The overall visual impression created by the Upper Delaware is one of tranquil, scenic beauty. Its forested slopes, clear waters, rolling hills, pasturelands, and rural hamlets have not been extensively developed. The river corridor is without major commercial strip development, tall buildings, large power transmission towers, major highways, and large-scale industrial development. The absence of these technological developments emphasizes the rural character of the valley.

The landscape within the river corridor is characterized by gently rolling hills with elevations from 800 to 2,000 feet above sea level, with steep slopes leading down to the river. The uplands remain largely forested, populated primarily by scattered hunting clubs, single-family residences and vacation homes. The valley floors have been more densely settled with farms, rural settlements and river towns. The high quality of the Upper Delaware Valley landscape results from the contrast of farmland and hamlets on the linear valley floors and the forested hills that surround the valley. These scenic qualities are among the reasons for which the river was added by Congress to the National Wild and Scenic Rivers System.

General land development will have the greatest potential impact to the scenic resources of the Upper Delaware River Valley. Extensive residential development, industrial uses and major powerlines could alter the character of the rural and natural landscape. The location, type and design of new structures, and the amount of land clearing required, are some of the factors which determine the impacts of development on scenic resources.

G. Socioeconomic Conditions

1. Population Trends

Almost all the towns and townships in the area experienced substantial population gains over the last decade. Several factors have contributed to migration into the area. First, interstate highway construction and general transportation improvements have greatly increased the area's accessibility. Second, the nearby Pocono and Catskill mountains are attractive areas of settlement, particularly for vacationers and retired persons. As a whole, corridor towns and townships have a much greater proportion of persons age 60 and older than do other parts of New York and Pennsylvania (Table III.8). National and regional trends toward population shifts from urban to rural areas have further contributed to population gains in the Upper Delaware River area.

As the total population figures demonstrate, out of the 15 Upper Delaware municipalities, only Hancock, NY lost population from 1970 to 1980. Most other municipalities realized substantial population increases, with three townships -- Lackawaxen, Shohola, and Berlin -- gaining 50% or more in total population during this period. In the 1970's, Pike County was the fastest-growing county in Pennsylvania, with a 55% population increase. Wayne County showed a 19% increase, while the statewide population gain was less than 1%. In New York the northernmost county in the corridor, Delaware County, grew by only 5% in the 1970's, but the other two counties showed high growth rates: a 24% increase in Sullivan County and a 17% increase in Orange County.

Table III.8: Total Population and Population
60 Years of Age and Older (1980)

<u>Town/Township</u>	<u>1960</u>	<u>1970</u>	<u>Percentage Change 1960-1970</u>	<u>1980</u>	<u>Percentage Change 1970-1980</u>	<u>Population 60 and Over (1980 census)</u>	<u>Percentage of Total Population Over 60*</u>
<u>New York</u>							
<u>Delaware County</u>							
Hancock	3,907	3,604	- 7.8	3,497	- 3.0	744	21.3
<u>Orange County</u>							
Deerpark	2,777	4,370	+57.4	5,633	+28.9	977	17.3
<u>Sullivan County</u>							
Cochecton	1,070	1,181	+10.4	1,330	+12.6	325	24.4
Delaware	2,141	2,260	+ 5.6	2,783	+23.1	575	20.7
Fremont	1,047	1,047	0.0	1,346	+28.6	314	23.3
Highland	1,138	1,377	+21.0	1,878	+36.4	559	29.8
Lumberland	538	857	+59.3	1,210	+41.2	355	29.3
Tusten	1,087	1,224	+12.6	1,424	+16.3	476	33.4
<u>Pennsylvania</u>							
<u>Pike County</u>							
Lackawaxen	1,068	1,363	+27.6	2,111	+54.9	583	27.6
Shohola	413	574	+39.0	986	+71.8	307	31.1
Westfall	838	1,348	+60.9	1,825	+35.4	361	19.8
<u>Wayne County</u>							
Berlin	1,010	1,109	+ 9.8	1,676	+51.1	366	21.8
Buckingham	593	578	- 2.5	667	+15.4	150	22.5
Damascus	1,703	2,006	+17.8	2,536	+26.4	572	22.6
Manchester	558	494	-11.5	629		133	21.1
<u>Totals</u>	19,888	23,392	+17.6	29,531	+26.2	6,797	23.0

Source: Totals from 1960, 1970, and 1980 Censuses of Population, Bureau of the Census, U.S. Department of Commerce.

*For the New York towns in the corridor, the percentage of total population over age 60 is 22.6, while for the state it is 13.2; for Pennsylvania townships the percentage is 23.7, while for the state it is 18.2.

Both New York and Pennsylvania have made projections of population growth for river corridor municipalities through the year 2000. These projections were made by the New York Department of Environmental Conservation, Bureau of Water Quality Management, and the Pennsylvania Department of Environmental Resources, Bureau of Water Quality, as part of the planning process for new water and sewer treatment facilities. The projected population changes for the two states differ because they are based upon different assumptions and statistical methods. Most of the Pennsylvania townships are expected to show population gains of about 7% by the year 2000, while the New York town projections range from a decline of 3% in Hancock to an increase of 23% in Deerpark (see Appendix C. Table C.1). Pennsylvania water quality analysts have stated that Pennsylvania projections are probably too low in light of the rapid growth experienced by Wayne and Pike Counties in the 1970's (Hayden, 1985). The Pennsylvania State Data Center in fact predicts an 86% increase in Pike County's population and a 38% increase in Wayne County's during this time period (Pennsylvania State Data Center, 1985).

2. Socioeconomic Characteristics of Landowners

The majority of respondents to two 1980 landowner surveys* conducted in the Upper Delaware River area were above 45 years of age with secondary education and white collar occupations.** Three quarters of the landowners surveyed were 45 years of age or older (Table III.9). Approximately 4 out of 5 landowners had completed high school and over one-half of the high

*"Characteristics and management preferences of landowners along the Upper Delaware Scenic and Recreational River," D.J. Decker, C.P. Dawson, and R.A. Smolka, Jr., 1981. A more recent (1985) landowner Survey, "A Report on the 1984 Landowner Survey along the Upper Delaware River," focuses on landowner management preferences and concerns rather than socio-economic characteristics. This study was prepared by Foresight Consulting Group for the Conference of Upper Delaware Townships.

**A questionnaire was mailed to 1,298 randomly selected individuals living within one mile of the Upper Delaware River. Nine hundred and forty-five (73%) questionnaires were returned and useable for analysis.

TABLE III.9: AGE OF UPPER DELAWARE RIVER AREA RIPARIAN* AND NONRIPARIAN LANDOWNERS (1980)**

AGE	LANDOWNER			
	RIPARIAN		NONRIPARIAN	
	PERCENT	NUMBER	PERCENT	NUMBER
24	0.5	2	0.4	2
25-34	6.0	25	7.3	35
35-44	15.1	63	17.3	83
45-54	23.6	98	22.2	107
55-64	24.7	103	22.9	110
65-74	22.4	93	20.8	100
75	7.7	32	9.1	44
TOTAL	100.0	416	100.0	481

TABLE III.10: YEARS OF SCHOOL COMPLETED BY UPPER DELAWARE RIVER AREA RIPARIAN AND NONRIPARIAN LANDOWNERS (1980)

YEARS OF SCHOOL	LANDOWNER			
	RIPARIAN		NONRIPARIAN	
	PERCENT	NUMBER	PERCENT	NUMBER
8	8.5	35	11.4	54
9-11	9.0	37	12.4	59
12	32.0	132	36.9	175
13-16	31.8	131	28.8	137
17	18.7	77	10.5	50
TOTAL	100.0	412	100.0	475

* Riparian landowners are all individuals in the survey who own land adjacent to the Upper Delaware River.

**This study defines the Upper Delaware River area as a 2-mile and 75-mile long corridor from the confluence of the east and west branches of the Upper Delaware River at Hancock, New York to Cherry Island near Sparrow Bush, New York.

Source: "Characteristics and management preferences of landowners along the Upper Delaware Scenic and Recreational River," D.J. Decker, C.P. Dawson, and R.A Smolka Jr., Outdoor Recreation Research Unit of Department of Natural Resources, New York State College of Agricultural and Life Sciences. Cornell University, Ithaca, NY:, 1981., p.6.

school graduates had some college education (Table III.10). One-third of the respondents were retired or disabled, one-third were in white collar positions, and the remaining one-third were in a variety of occupations ranging from farmers to housewives to craftsmen (Table III.11). About one-half of the respondents reported 1979 family incomes of \$20,000 or more (Table III.12).

Forty-eight percent of landowners lived on or near their property and 52% were absentee landowners living entirely outside the river corridor. Landowners cited a variety of reasons for owning land. Residents primarily owned land as a permanent residence, while absentee owners indicated recreation as a major reason. Other reasons for owning land were its development and investment potential and use as a future place of residence.

3. Regional Housing Trends

Between 1970 and 1980 the Upper Delaware municipalities realized a marked increase in the number of total housing units available (Table III.13). Numerous townships in Wayne and Pike counties as well as the town of Tusten gained a higher percentage of total housing than of permanent population during the same period. Much of this can be attributed to second-home and retirement home development within these areas, as well as to the nationwide trend of declining household size.

The market for second and retirement homes basically results from the area's recreational and scenic values, and its good highways which bring it within two to four hours driving time from New York City and other metropolitan areas. This market is further stimulated by housing prices lower than the average median value in either state (Table III.13), and by lower local real estate taxes. Seasonal homes now make up 30% of the total housing stock in the Upper Delaware municipalities.

TABLE III.11: OCCUPATIONS OF UPPER DELAWARE RIVER AREA RIPARIAN AND NONRIPARIAN LANDOWNERS (1980)

OCCUPATION	LANDOWNER			
	RIPARIAN		NONRIPARIAN	
	PERCENT	NUMBER	PERCENT	NUMBER
PROFESSION-TECHNICAL	25.2	101	16.4	77
MANAGER - PROPRIETOR	7.5	30	7.8	37
SALES - CLERICAL	6.0	24	6.8	32
TRADES - FOREMAN	6.2	25	9.8	46
OPERATORS	2.7	11	4.4	21
SERVICE WORKERS	2.2	9	2.7	13
LABORERS	1.7	7	2.1	10
FARMERS	1.7	7	2.5	12
SELF-EMPLOYED	6.7	27	7.8	37
HOUSEWIVES	5.5	22	6.3	30
STUDENTS	0.2	1	0.6	3
RETIRED - DISABLED	34.4	138	32.4	153
UNEMPLOYED	0.0	0	0.4	2
TOTAL	100.0	402	100.0	473

TABLE III.12: 1979 FAMILY INCOME OF UPPER DELAWARE RIVER AREA RIPARIAN AND NONRIPARIAN LANDOWNERS

FAMILY INCOME	LANDOWNER			
	RIPARIAN		NONRIPARIAN	
	PERCENT	NUMBER	PERCENT	NUMBER
< \$5,000	6.3	21	8.4	34
\$5,000 - \$9,999	13.7	46	13.1	53
\$10,000 - \$14,999	13.1	44	16.9	68
\$15,000 - \$19,999	15.6	52	14.1	57
\$20,000 - \$24,999	13.4	45	11.9	48
\$25,000 - \$29,999	10.7	36	10.1	41
\$30,000 - \$39,999	12.5	42	11.9	48
\$40,000 & over	14.7	49	13.9	55
TOTAL	100.0	335	100.0	404

Source: "Characteristics and management preferences of landowners along the Upper Delaware Scenic and Recreational River," D.J. Decker, C.P. Dawson, and R.A Smolka Jr.,

Table III.13: Number of Total and Seasonal Housing Units Within Towns and Townships

<u>Town/Township</u>	<u>Total Units 1970</u>	<u>Total Units 1980</u>	<u>Percentage Change</u>	<u>Total Seasonal Units (1980)</u>	<u>Percentage of Total Units</u>	<u>Median Value of Owner-Occupied Housing*</u>
<u>New York</u>						
<u>Delaware County</u>						
Hancock	1,728	2,035	+17.8	571	28.0	\$25,100
<u>Orange County</u>						
Deerpark	1,796	2,445	+36.1	270	11.0	34,300
<u>Sullivan County</u>						
Cochecton	964	817	-15.2	275	33.7	34,500
Delaware	1,009	1,167	+15.7	231	19.8	35,400
Fremont	749	843	+12.6	304	36.1	29,900
Highland	992	1,271	+28.1	446	35.1	40,500
Lumberland	805	1,079	+34.0	442	41.0	38,800
Tusten	742	943	+27.1	341	36.2	37,700
<u>Pennsylvania</u>						
<u>Pike County</u>						
Lackawaxen	994	1,526	+53.5	629	41.2	44,200
Shohola	627	867	+38.3	433	49.9	48,600
Westfall	576	833	+44.6	138	22.2	45,100
<u>Wayne County</u>						
Berlin	478	792	+65.7	164	20.7	41,700
Buckingham	300	393	+31.0	137	34.9	30,000
Damascus	935	1,535	+64.2	560	36.5	41,300
Manchester	248	439	+77.0	212	48.3	32,300
<u>Totals</u>	<u>12,943</u>	<u>16,985</u>	<u>+31.2 avg</u>	<u>5,153</u>	<u>30.3 avg</u>	<u>\$37,300 avg</u>

*New York State average median value is \$45,900; Pennsylvania, \$39,100.

Source: Totals from 1980 Census of Housing, Bureau of the Census, U.S. Department of Commerce.

Aerial photographs and topographic maps were analyzed to determine the number of residences within the proposed river corridor boundary in 1965 and 1983. There are at present some 2,459 housing units within the boundary (although it is impossible to determine exactly how many are currently inhabited), of which at least 554 (27%) were built during this 15 year period.* This figure represents a 37% increase over the number of housing units in the corridor in 1965. The percentage of each town's total housing units that are found within the river corridor can also be estimated (although only 1980 figures are available for total housing units townwide). This percentage ranges from 1% (Berlin) to 37% (Tusten).

Future growth in new residential construction for the 20-year planning period can be projected using the somewhat conservative population projections discussed in Chapter III G.1 combined with assumptions about growth in second homes. It has been estimated that second home development will continue to increase by approximately 20% per decade between now and the year 2000 (Munley and Aronson 1985). Assuming that this trend is correct, and that the current trend toward small household continues, total housing units in the corridor should increase by approximately 25% over the 1983 totals by the end of the planning period. (For a complete explanation of how this estimate was arrived at, see Appendix C).

* Information on new construction was not available for most of the hamlet areas, so that this figure represents mainly scattered, rural housing.

4. Land Use and Landownership

Land Use

As shown on Map 11 the Upper Delaware River corridor is approximately 73% forested land. Forest vegetation is divided nearly equally between deciduous and mixed coniferous/deciduous stands, with a few small coniferous stands within the corridor. This forest cover provides watershed protection, wildlife habitat, and timber. It is estimated that about 22% of the annual timber growth in the area is harvested. Several sites southwest of the Narrowsburg area have recently been logged; several areas north of Equinunk and adjacent to the northern edge of the river corridor have also been cut.

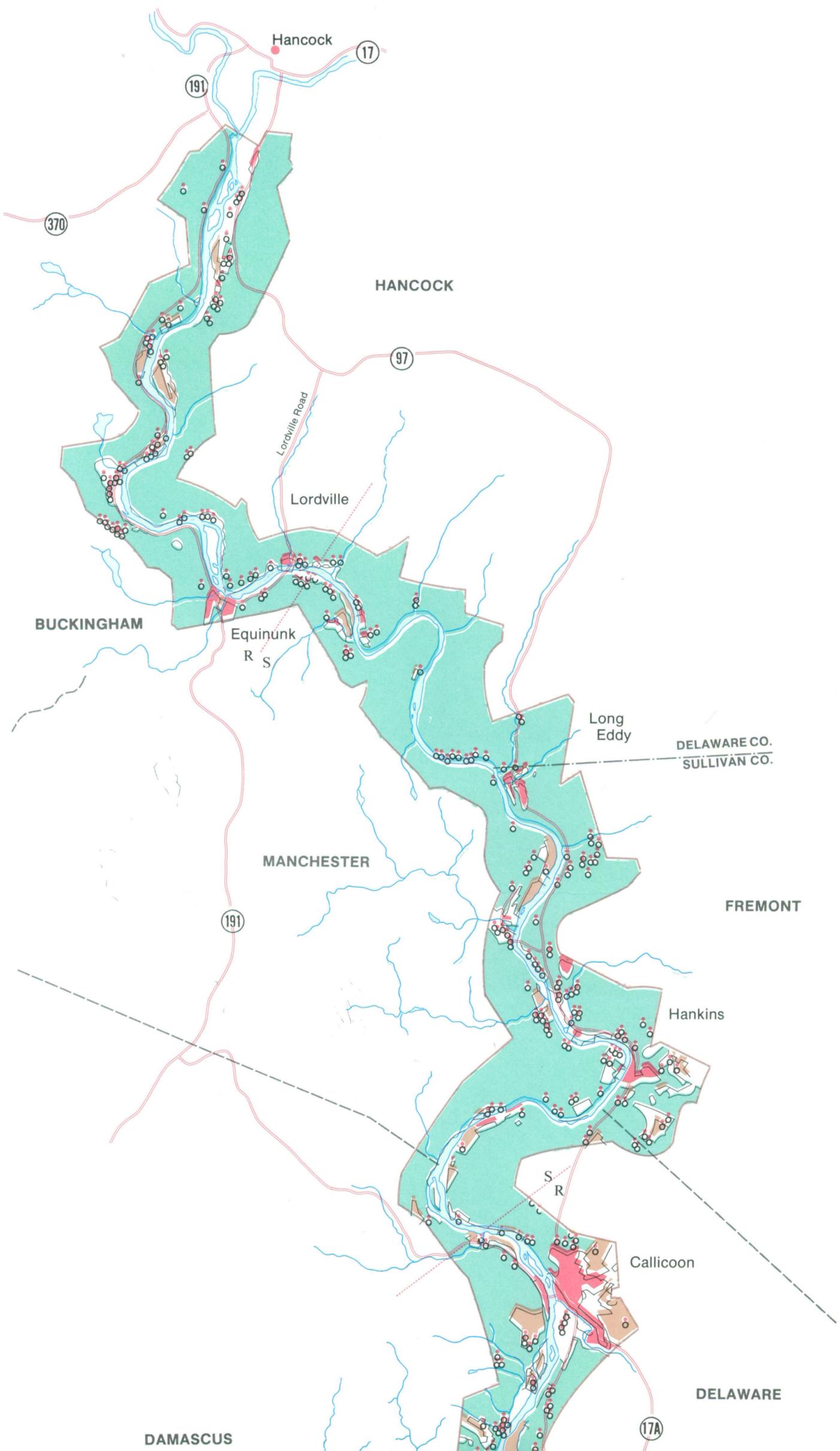
Three and a half percent of the land is in cultivated cropland. The majority of this land is devoted to dairy farming, vegetable production, and poultry raising. Although farmlands are located throughout the entire corridor, 65% of the agricultural activity occurs between the settlements of Hancock and Narrowsburg.

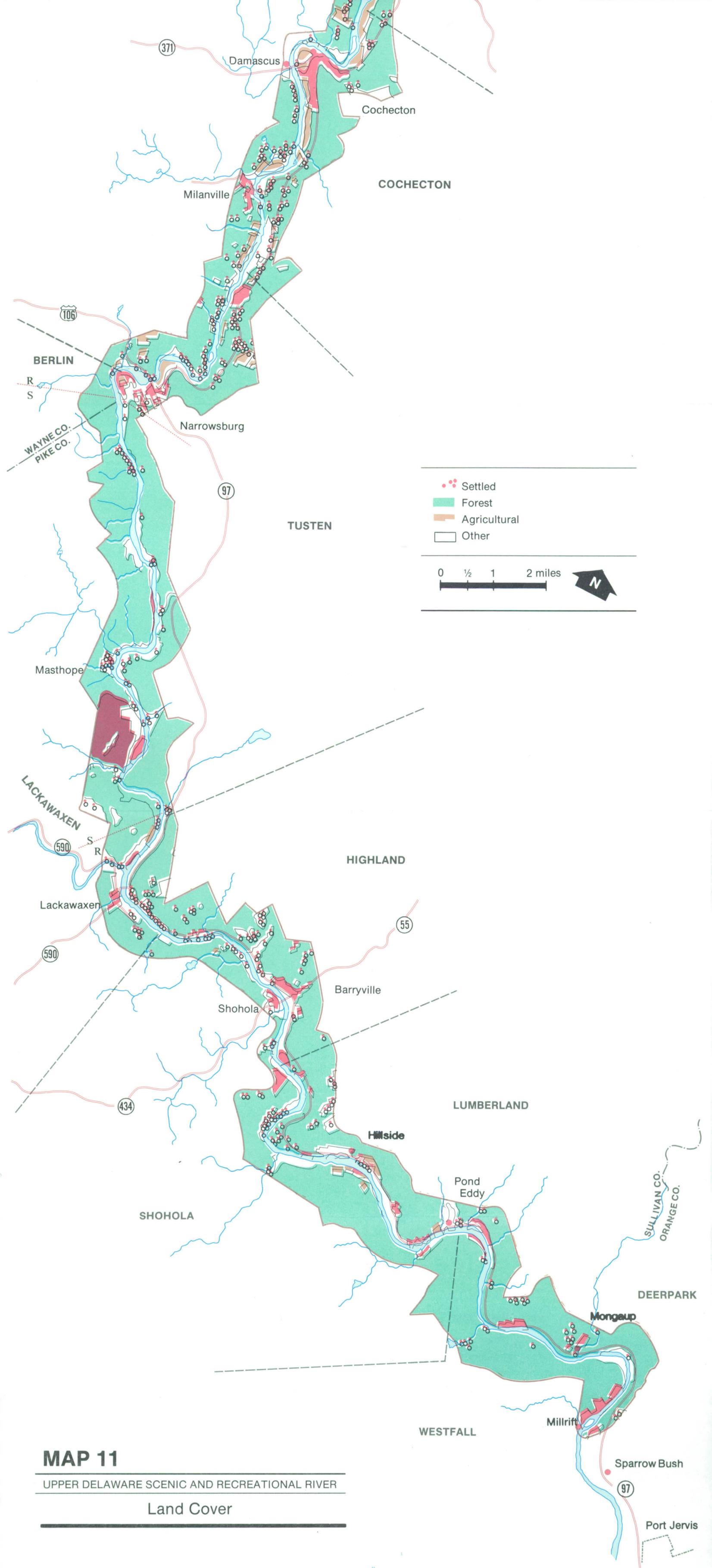
About 6% of the river corridor consists of various types of residential and commercial development; 5% consists of land in hamlets, and the remaining 1% consists of camps, seasonal cabins, picnic areas, boat and canoe rental structures, and other dispersed settlements. The remaining 18-19% of the corridor consists of other open land--river floodplain, pastures, old fields, and vacant land. Most new development (68%) in the period 1968-83 occurred on former forest land. State highway 97, located on the New York side, has contributed to new development; the Pennsylvania side retains a more rural character.

Landownership

One of the outstanding characteristics of the Upper Delaware River corridor is the large extent of private ownership of land. Over 95 percent of the land in the Upper Delaware corridor is owned by private individuals. A significant portion of this land is used for camps and hunting clubs.







- Settled
- Forest
- Agricultural
- Other



MAP 11

UPPER DELAWARE SCENIC AND RECREATIONAL RIVER

Land Cover

The ownership pattern is dominated by individual, small tract ownership, although Westfall, Shohola, and Lackawaxen townships have several tracts of over 1,000 acres within their boundaries. These larger tracts are owned by the Pennsylvania Game Commission, hunting clubs, and a private resort development.

Land use in the river corridor municipalities is regulated primarily through local authorities: town, township and county governments. Different sets of state codes and regulations apply in Pennsylvania and New York; the principal state laws and programs affecting land use in each state are described in Appendix D.

5. Community Services

Law Enforcement

Pursuant to the Upper Delaware legislation, the National Park Service (NPS) provides financial assistance to local governments for law enforcement services related to river recreation use. Between 1980 and 1985, over \$1,028,751 was provided. NPS rangers' jurisdictional responsibilities are limited to the river and NPS-owned or leased property. On the river, NPS rangers patrol and enforce existing federal and state boating laws and state fishing and hunting laws.

Table III.14 is a summary of violation notices and courtesy tags issued by NPS rangers. Most of the violations issued were for lack of a Personal Flotation Device (PFD) or for fishing without a license. The chart also shows the number of litter violations which are a major concern of landowners. Although warnings are made for trespass, NPS rangers do not have jurisdiction on private land, so citations are not issued. Rangers also make numerous informational contacts with visitors in addition to law enforcement activity.

Table III.14: Summary of NPS Violation Notices/Courtesy Tags*

<u>Violation Notice Breakdown</u>	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	
Littering/Polluting	59/26	64/24	85/141	47/8	49/2	
PFD's	41/89	80/249	131/97	35/49	11/8	
Boating Violations	0/3	0/0	1/4	0/0	0/2	
Fishing Without a License	19/91	65/72	123/19	46/18	43/27	
Fishing Violation Other Than License	0/1	2/0	3/1	0/0	0/0	
Illegal Hunting	0/0	0/0	1/0	0/0	0/0	
Wildlife, Disrupt, Capture, Kill	0/0	0/0	2/0	0/0	0/0	
Possession of Controlled Substance	7/7	2/2	6/0	40/2	53/1	
Possession of Alcohol (underage)	0/0	0/0	0/0	3/0	0/0	
Drunk, Under the Influence	1/2	0/0	7/0	0/0	3/0	
Disorderly Conduct	1/0	1/0	5/0	3/2	5/0	
Unauthorized Possession of Firearms	5/1	0/0	3/0	0/0	1/0	
Fireworks	1/5	15/6	12/1	19/1	13/3	
False Information	2/0	1/0	7/0	4/0	13/0	
Tampering, Unlawful Possession	0/0	3/2	5/1	2/0	0/0	
Trespassing (Roebling Bridge closed during Construction)	0/0	0/0	0/0	0/0	5/2	
Miscellaneous	1/2	1/0	0/0	2/0	1/1	
Violation Notices/ Courtesy Tags:	TOTALS	137/227	234/355	391/134	201/80	197/46
Total River Area Visitation	151,218	107,288	225,959	162,490	157,711	

*Courtesy tags are written warnings with no fines.

Most Upper Delaware communities are currently unable to maintain the costs of a full time police force. In some instances, constables are hired to provide limited services, or sheriff's deputies and state police are called upon to provide police functions. Two municipalities, Deepark and Westfall, had police protection (other than state police in Pennsylvania or county sheriffs in New York) prior to NPS contracts. Four others, Lumberland, Highland, Tusten, and Hancock, had limited constable/police protection. Although constables and the state police supply a needed service, frequency of patrol, length of response time, and types of services vary.

Table III.15 shows the number of law enforcement contacts made by local government constables and police. Because local governments have jurisdiction over private land, they deal with trespass problems as well as litter, theft, accidents and other problems. Numerous informational contacts are also made by local law enforcement.

Table III.15: Local Law Enforcement Activity (NPS funded)

<u>Fiscal Year</u>	<u># of Contacts</u>	<u>Trespass</u>	<u>Littering</u>
80	N.A.	N.A.	N.A.
81	867	N.A.	N.A.
82	1105	211	143
83	2436	367	58
84	2740	557	43
85	2909	533	69

Source: National Park Service, Upper Delaware Scenic and Recreational River, Annual Reports.

Solid Waste Removal

Solid waste removal in the river towns and townships is primarily performed by private haulers with designated stops. To minimize litter problems caused by recreationists in the corridor, the National Park Service is legislatively authorized to financially assist river municipalities for the removal and proper disposal of solid waste. Between 1930 and 1935, over

\$300,000 was provided to local governments in the corridor area under the local trash removal program. Each community is responsible for developing its own program to collect solid waste. Table III.16 shows the amount of solid waste which was collected by local governments.

The National Park Service has entered into cooperative agreements with the New York State Department of Environmental Conservation and the Pennsylvania Fish Commission to operate information kiosks at several of their river access points during the canoe season. As part of this agreement, solid waste pickup is the responsibility of the National Park Service when it is maintaining kiosks at the access sites.

Table III.16: Local Trash Removal Program (NPS funded)

<u>Fiscal Year*</u>	<u>Summary</u>	<u>Cubic Yards of Trash Removed</u>
80		950
81		1069
82		1407
83		1397
84		659
85		1021

Source: National Park Service, Upper Delaware Scenic and Recreational River, Annual Reports.

* The NPS Fiscal Year begins on October 1.

Hospital Facilities

The only hospital facility within the river corridor is located along New York Highway 97 in the town of Delaware. Other nearby hospital facilities are located in Port Jervis and Honesdale.

Water Service

Most residents in the river corridor are served by individual water wells. However, the settlement areas of Long Eddy, Callicoon, and Narrowsburg have central water distribution systems that are all supplied through community

wells. Once the water has been pumped, it is held in storage tanks, chlorinated, and then out into the distribution systems.

6. Fiscal Status and Taxes

The seven Pennsylvania townships and eight New York towns in the Upper Delaware corridor are rural governments that provide minimal services. The major local function in both states is road maintenance. Refuse collection and law enforcement services do not receive major public financing. The NPS partially finances refuse collection services and contributes funds towards provision of law enforcement services.

The most recent year for which data on township expenditure patterns is available is 1982. These patterns are presented in the report entitled "Impact of the River Management Plan on the Finances of Local Governments in New York and Pennsylvania" (an Appendix to the River Management Plan). Municipal revenues in New York are generated primarily from property taxes and intergovernmental revenues. Pennsylvania townships also receive funds from both these sources, but receive additional revenues from Act 511 taxes, which include such items as per capita taxes, earned income taxes, and real estate transfer taxes.

Expenditure patterns are similar for municipalities in New York and Pennsylvania. The largest expenditure item for towns and townships is highways. Funds falling under this category are used for maintenance and improvement of town roads and bridges, snow removal, street lighting and public transportation. Highway expenditures amount to more than one-half of total budget outlays for most townships. Government administration expenditures are a significant item in township budgets. Under this heading expenditures are made for executive, legislative, judicial, and financial operations. Municipal expenditures for police and fire are as high as 10% of total budget in some cases.

TABLE III.17
Long Term Effects on Township Expenditures for Specific
Demographic Growth Rate Assumptions^a
(Dollar Values in Thousands of Dollars)

In: <u>Factors</u>	[1]	[2]	[3]	[4]	[5]	[6]
	1982	Additional Expenditures Due to An Assumed Increase				Total
	Total Expenditures	Retirement Population	Recreation Visits	Vacation Home Ownership _b		All Three
<u>NEW YORK</u>						
Hancock	\$592.1	\$27.0	\$8.9	\$(0.9) ^b	\$35.0	0.53%
Deerpark	716.8	33.0	7.2	8.7	48.9	0.72%
Cochecton	423.6	18.9	6.3	[5.4]	19.8	0.46%
Delaware	524.2	23.5	7.8	[0.9]	30.3	0.34%
Fremont	337.0	17.6	6.1	7.4	31.1	0.83%
Highland	512.6	17.8	6.4	[11.8]	12.5	0.28%
Lumberland	533.8	20.0	7.5	[12.3]	15.3	0.29%
Tusten	482.3	14.8	5.1	[3.5]	16.4	0.27%
<u>PENNSYLVANIA</u>						
Lackawaxen	229.2	9.2	2.0	[4.0]	7.2	0.28%
Shohola	140.4	5.7	1.6	[3.6]	3.7	0.23%
Westfall	206.7	2.8	0.8	[0.6]	3.1	0.15%
Berlin	156.5	5.3	2.2	1.4	8.9	0.57%
Buckingham	95.7	3.2	1.1	1.4	5.8	0.55%
Damascus	397.9	16.7	6.7	7.7	31.2	0.76%
Manchester	176.5	6.8	2.3	2.9	12.0	0.64%

Notes:

^a Assumptions: 20% growth in visitor attendance and second home ownership, 5% growth in retirement population

^b Brackets indicate negative numbers

Source: Authors' estimates

Source: Upper Delaware River
River Management Plan,
Appendix F, January 1986

Existing expenditure patterns indicate that a significant relationship exists between summer visitors, seasonal residents, retirement population, and municipal expenditures. Increases in visitation, second home development and retirement population lead to an increase in highway expenditures. Increases in retirement population are paralleled by increases in expenditures on government administration, fire protection, and sanitation.

In 1982 municipal finance reports, seven townships reported annual line item expenditures for zoning and planning. The average annual expenditure for this group was \$1557. Individual values ranged from a low of \$192 to a high of \$3213.

7. The Land Market

The National Park Service, at the request of the Citizens' Advisory Committee, contracted with Coughlin, Keene, and Associates to determine how implementation of the River Management Plan would affect the Upper Delaware land market. Coughlin and Keene's study, "The Effects on the Land Market of the River Management Plan for the Upper Delaware National Scenic and Recreational River" (September 1985) focused on undeveloped land within the river corridor, exclusive of settlement areas.

The study found the following trends in the Upper Delaware Land Market. A typical characteristic of a land market that is rural or undeveloped is that individuals rather than investors or developers comprise the largest potential buyers. This is the case in the Upper Delaware area, where individuals account for 95-99% of the acreage sought. This is significant because of the preference patterns of individuals related to plot size and intended use of the land. In the Upper Delaware land market, 80-90% of potential land purchasers are seeking second homes, to eventually be used

as retirement dwellings, while 10-20% of consumers want year round residences. The preference patterns for these two groups of land purchasers are identified in the study as follows:

purchasers of second homes: 3 or more acres
purchasers of year round homes: 2-5 acres

Real estate activity in the corridor is light, since much of the land is steep and difficult to develop. The number of sales is small considering the size of the study area. However, comparison of the six years prior to designation as a National Scenic and Recreational River (1973-78) with the six years following designation (1979-84) reveal that the number of sales increased by over 200% for tracts between 3-8 acres and by 70% for larger tracts.

Prices of land have increased steadily every year since 1977, with one estimate identifying a 10% annual rise. The table below summarizes the median selling price of tracts per acre.

MEDIAN SELLING PRICE OF TRACTS PER ACRE	EARLY 70's	LATE 70's	EARLY 80's
tracts 5 or more acres	\$600-\$1,200	\$800-\$1,000	\$1,000-\$1,400
tracts less than 5 acres	\$1,000-\$2,000	\$1,500-\$2,500	\$2,000-\$3,000

To summarize, the Upper Delaware land market is dominated by individuals seeking second and permanent homes, is characterized by light real estate activity, and has experienced increases in both land prices and the number of transactions since at least 1977.

CHAPTER IV - ENVIRONMENTAL CONSEQUENCES

A. Introduction

The Environmental Consequences section provides the analytical base for assessing the environmental impacts of the alternatives. The consequences of implementing each alternative for the Upper Delaware River are presented. Environmental topics were chosen based on the scoping process as described in Chapter V.

B. Assumptions

For the purpose of analysis and evaluation of alternatives in this EIS, the EIS Team has made several assumptions regarding future amounts of residential development and recreational use in the Upper Delaware river corridor.

The projections of future residential development were based on a review of county and state population and housing data. The EIS team assumed that present rates of housing development would level off over the next 20 years, consistent with expected population trends. Based on present projections it is therefore expected that a 25% increase in housing units would occur between 1983 and 2005.

The EIS team also projected river-related recreational use over the next 20 years. Based on past trends, the EIS team projected an average 2.5% annual increase in recreational use, representing an increase of 64% between 1983 and 2005. Population, housing, and recreational use projections are described in detail in Appendix C.

C. Alternative 1: Implement the Proposed RMP

1. Impacts on the Sport Fishery

Introduction

High water quality, coldwater releases from upstream tributaries, and free-flowing character make the Upper Delaware one of the finest sport fisheries

ivers in the eastern United States. Approximately 40 miles of tributary streams exist within the river corridor, providing spawning and nursery habitat for both coldwater fish (brown, rainbow, and brook trout), and warmwater fish (smallmouth bass, sunfish, and walleye) with bass being the major sport fish. The mainstem of the Upper Delaware provides important spawning and nursery habitat for the American shad, an anadromous fish with annual migrations of up to 500,000 fish. All tributaries in New York State classified as C or higher (Basket Creek, Hankins Creek, Callicoon Creek, and the Mongaup River) have spawning habitat for rainbow and brown trout which is important to the fisheries of the main stem. All tributaries on the Pennsylvania side of the river, except for the Lackawaxen River, have been designated as "exceptional value," "high quality," or "coldwater fishery." Factors contributing to the productivity of these areas include high water quality, deep pools, riffle areas and a rubble-boulder bottom substrate. Most impacts on sport fisheries spawning and nursery habitat are expected to be caused by new residential development, and incompatible uses as identified in Table II.3. Since trout are completely dependent on tributaries for spawning, they are at potential greater risks to changes in land use along tributaries than are other species with riverwide spawning capability.

Impacts to sport fisheries are expressed in relative terms. The meanings of these terms are as follows:

- o Major impact - affecting a regional or local population of a species sufficiently to cause a decline in abundance or a change in distribution beyond which natural recruitment would not likely return that population to its former level within several generations.
- o Moderate impact - affecting a portion of a regional or local population sufficiently to cause a change in abundance or distribution over more than one generation, but unlikely to affect the integrity of the regional population as a whole.
- o Minor impact - affecting a specific group of individuals of a population in a localized area for one generation or less; the integrity of the regional population is not likely affected.
- o Negligible impact - the degree of anticipated biological impact is considered less than minor.

The River Management Plan does not propose any actions with respect to managing the sports fishery resource or fishing as a recreational activity. Fishing will continue to be managed under state regulation.

Four fishing access sites are recommended in the proposed plan and are also included under alternative 3. These four areas are located to resolve access, visitor safety, and landowner concerns. They are not expected to increase fishing use, or have impacts on the sports fishery resource, because that use is already occurring at the sites.

A. Impacts to Shad

Land use activities that cause soil erosion and the resultant siltation of important habitat and spawning areas can adversely affect the shad population. These areas are found along the entire mainstem of the river corridor. Increased rates of soil erosion can result from vegetative clearing and construction activities on steep slopes and on riverbanks and ridgelines. Large sediment loads carried by stormwater runoff can cause siltation of shad spawning habitat.

Within the past 15 years, 654 new structures have been built in the river corridor. Based on the present excellent water quality readings and the opinions of fisheries biologists in New York and Pennsylvania, present levels of residential and commercial development have had negligible impacts on shad. The number of residential structures within the Upper Delaware River corridor is projected to increase by approximately 25% during the next 20 years, an increase of about 625 housing units.

It is estimated that local land use provisions regulating new construction on steep slopes in conformance with the Land Use Guidelines would be in effect in about 85% of the river corridor. Similarly, zoning provisions controlling new construction within 100 feet of the river, in conformance with the Guidelines, would cover about 85% of the corridor. The regulations would help to prevent erosion and reduce the likelihood of

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sedimentation in important habitat and spawning areas. Although scattered erosion problems associated with new construction could be expected in the remaining 15% of the corridor it is unlikely that sediment loads would increase to the point of impacting shad spawning and nursery areas in the main stem. A negligible impact from projected new development on shad spawning habitat would occur.

Incompatible uses listed in the proposed Land and Water Use Guidelines can have adverse effects on shad fisheries. Specific land uses with potentially deleterious effects on the fisheries of the Upper Delaware include impoundments, channel modifications and power plants which could impede the shad migrations, and landfills, major mining operations, and heavy industrial uses which could negatively impact water quality. Section 7 of the National Wild and Scenic Rivers Act precludes federally licensed or funded water resource projects (including impoundments and channel modification projects) which would alter the free-flowing characteristics of the Upper Delaware. It is estimated that new major mining operations and heavy industrial uses would be precluded by local land use ordinances in approximately 85% of the river corridor. There are no known proposed major incompatible uses (see Table II.3) in the remaining 15% of the corridor. Because of relatively low population growth, little new development, distance from major urban markets, and the limited availability of suitable sites in the corridor, it is unlikely that new major incompatible uses would occur. In the event that major incompatible uses were proposed in towns not in conformance with the guidelines, they would be blocked through actions by the counties, states, the Delaware River Basin Commission or as a last resort, through federal acquisition. Negligible impacts from new incompatible uses in the corridor on shad spawning habitats are expected.

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The three proposed river rest stops and four fishing access sites would have a negligible impact on shad spawning habitats. Some disturbance to the shad habitat in the form of sedimentation may occur during construction of the three proposed river rest stops and the four boating access sites. This would be mitigated by using construction practices that would minimize sedimentation or scheduling construction so that it does not interfere with the shad migration. Some very localized temporary disturbance to shad habitat may occur from use at the access sites in the form of boat launching or wading. Overall, there would be a negligible impact on shad spawning habitats from recreational facility development and use.

Conclusion

The overall quality of Upper Delaware shad fishery would be maintained through the requirements of Section 7 of the Wild and Scenic Rivers Act and through local zoning consistent with the Land and Water Use Guidelines. Negligible impacts from erosion and sedimentation due to new development; from major incompatible uses; and from recreational facility development would occur.

B. Impacts to Trout

Land use activities that cause soil erosion and the resultant siltation of important habitat and spawning areas which occur primarily in tributaries can adversely affect the trout population. Increased rates of soil erosion can result from vegetative clearing and construction activities on steep slopes and on riverbanks and ridgelines. Large sediment loads carried by stormwater runoff can cause siltation of trout spawning habitat. Based on the present excellent water quality readings and the opinions of fisheries biologists in New York and Pennsylvania, present levels of residential and commercial development have had minor impact on trout.

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The number of structures within the Upper Delaware River corridor is projected to increase by approximately 150 units during the next 20 years along the trout habitat and spawning areas which are located north of Callicoon (25 miles). Under this alternative, it is estimated that zoning in conformance with the guidelines will occur in over 50% of the corridor north of Callicoon. The regulations would help to prevent erosion and sedimentation as a result of construction activities from impacting important trout habitat and spawning areas. In the remaining 50% of the northern corridor, some (estimated at 35-40 units) development could occur which would cause scattered erosion and possible sedimentation problems in the tributaries. As a result, a minor impact to trout spawning and nursery habitat would result.

Major incompatible uses listed in the proposed Land and Water Use Guidelines (see Table II.3) can have adverse effects on trout habitat and spawning areas. Specific land uses with potentially deleterious effects on the fisheries of the Upper Delaware include impoundments, channel modifications, power plants, landfills, major mining operations, and heavy industrial uses. Section 7 of the National Wild and Scenic Rivers Act would preclude federally licensed or funded water resource projects (including impoundments and channel modification projects) which would alter the free-flowing characteristics of the Upper Delaware.

New major incompatible uses such as major mining operations and heavy industrial uses would likely be precluded by local land use ordinances in approximately 50% of the river corridor north of Callicoon. There are no known proposed major incompatible uses (see Table II.3) in the remaining 50% of the northern corridor. Because of relatively low population growth, little new development, distance from major urban markets, and the limited availability of suitable sites in the corridor, it is unlikely that new

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major incompatible uses would occur. In the event that major incompatible uses were proposed in towns not in conformance with the guidelines, they would be blocked through actions by the states, the Delaware River Basin Commission or as a last resort, through federal acquisition. Negligible impact from new major incompatible uses in the corridor on trout spawning habitats are expected.

No impact on trout spawning habitat from the development of the proposed 3 river stops and 4 fishing access sites is expected because these are located on the main stem below Callicoon.

Conclusion

The overall quality of Upper Delaware trout fisheries would be maintained through the requirements of Section 7 of the Wild and Scenic Rivers Act and through local zoning consistent with the Land and Water Use Guidelines. Minor impacts from erosion and sedimentation to trout spawning and nursery habitat on a few tributary streams may occur from residential construction activities. Negligible impacts from major incompatible uses and recreational facility development and use are expected.

C. Impacts to Bass

Land use activities that cause soil erosion and the resultant siltation of important habitat and spawning areas which occur primarily in tributaries can adversely affect the bass population. Increased rates of soil erosion can result from vegetative clearing and construction activities on steep slopes and on riverbanks and ridgelines. Large sediment loads carried by stormwater runoff can cause siltation of bass spawning and nursery habitat. Based on the present excellent water quality readings and the opinions of fisheries biologists in New York and Pennsylvania, present levels of residential and commercial development have had minimal impacts on bass. The number of residential structures within the Upper Delaware River corridor is projected to increase by approximately 475 units during the next 20 years along the primary bass habitat and spawning areas located below Callicoon.

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It is estimated that local land use provisions regulating new construction on steep slopes in conformance with the Land Use Guidelines would occur in about 90% of the river corridor below Callicoon. Similarly, zoning provisions controlling new construction within 100 feet of the river, in conformance with the Guidelines, would cover virtually all of that portion of the corridor below Callicoon. These regulations would help to prevent erosion and sedimentation as a result of construction from impacting important bass habitat and spawning areas. Scattered erosion problems associated with new construction could be expected in the remaining 10% of the corridor. As a result, minor impacts to bass spawning habitat might occur on a small number of the lower reaches of tributary streams below Callicoon.

Major incompatible uses listed in the proposed Land and Water Use Guidelines can have adverse effects on bass habitat and spawning area. Specific land uses with potentially deleterious effects on the fisheries of the Upper Delaware include impoundments, channel modifications, power plants, landfills, major mining operations, and heavy industrial uses. Section 7 of the National Wild and Scenic Rivers Act would preclude federally licensed or funded water resource projects (including impoundments and channel modification projects) which would alter the free-flowing characteristics of the Upper Delaware. New major incompatible uses such as mining operations and heavy industrial uses would likely be precluded by local land use ordinances in virtually all of the river corridor south of Callicoon. Proposed major incompatible uses (such as major mining or heavy industry) in towns not in conformance with the Guidelines could be blocked through actions by the states or Delaware River Basin Commission or, as a last resort, through federal acquisition. Negligible impacts from major incompatible uses to bass spawning areas and habitat are expected.

Proposed recreation facilities are located near the main stem of the river with the one site proposed at the confluence of a tributary stream and the Delaware. Some disturbance to bass habitat in the form of sedimentation may occur during development of a river rest stop. This could be mitigated by using construction practices that would minimize sedimentation or scheduling construction so that it does not interfere with bass spawning. Some very localized temporary disturbance to bass habitat may occur from use at the rest stop. Overall, there would be a negligible impact on bass spawning habitats from recreational facility development and use.

Conclusion

The overall quality of Upper Delaware bass fisheries would be maintained through the requirements of Section 7 of the Wild and Scenic Rivers Act and through local zoning consistent with the Land and Water Use Guidelines. Minor impacts to bass spawning areas and habitats on a few tributary streams may occur from residential construction activities. Negligible impacts from incompatible uses and recreational facility development would occur.

2. Impacts on Water Quality

A. Impacts on Surface Water Quality

Introduction

Water quality data indicate that the Upper Delaware basin has good to excellent water quality. (See Chapter III/C.7.) The entire main stem of the Upper Delaware meets federal "fishable and swimmable" water quality goals.

Due to the rural character and low population density of the river corridor, with an economy largely based on tourism, small service-oriented businesses and some agriculture, the area suffers from only minor localized water quality problems. These non-point source pollution problems are primarily caused by agricultural runoff and malfunctioning on-lot residential sewage disposal systems.

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Impacts to water quality are expressed in relative terms. The meanings of the terms used in this section are as follows:

- o Major impact - extensive changes in the physical, chemical or biological parameters of a waterbody, on the level of several orders of magnitude, to a degree that renders the waterbody unacceptable for use by humans or fish and wildlife species, creates a health hazard, or otherwise impairs the beneficial uses of the waterbody.
- o Moderate impact - a statistically significant change in the physical, chemical or biological parameters of a waterbody that cannot be overcome without man-induced corrective measures.
- o Minor impact - a change in some or all of the normal measures of water quality, such as oxygen content, temperature, transmittance, trace metal concentrations, and hydrocarbon levels, but the change is either not statistically different from ambient conditions, or the change deviates significantly but can be readily overcome by the waterbody's natural withstanding capacity.
- o Negligible impact - less than minor.

Impacts from New Residential Development

Future residential development could adversely affect surface water quality primarily through nutrient loading from malfunctioning on-lot septic disposal systems or discharges from sewage treatment plants. Of the 17 hamlets within the corridor, only Narrowsburg and Hancock have sewage treatment facilities.

The majority of homes within the river corridor rely on individual sewage disposal systems. According to the Soil Conservation Service system of soil classification, most soils within the corridor have severe limitations for septic systems, due to factors such as seasonal high water tables, slow permeability, steep slopes, flooding, and/or stoniness. Based on SCS soil classifications, only approximately 10% of the soils in the river corridor are suitable for on-lot septic systems. These areas are primarily found on valley lowlands adjacent to the main stem of the Upper Delaware. Of the approximately 590 new residential structures constructed outside hamlet

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areas in the river corridor between 1968 and 1983, approximately 60% appear to have been constructed on soils with septic limitations. However, major negative effects on surface water quality have not been observed. This can probably be attributed to the low density of development and seasonal (primarily summertime) use of most of these new homes. Furthermore, due to the generalized nature of the SCS soil survey data, pockets of suitable soils can be found in areas otherwise having severe limitations. In addition, soil percolation tests required by most towns for new residential development help to insure that septic systems are constructed in suitable soils.

Under this alternative, it is estimated that towns encompassing 85% of the river corridor would adopt local zoning provisions in conformance with the Land Use Guidelines' standard that residential lots outside of hamlets be a minimum of 2 acres in size. This would help to ensure an overall low density development pattern, which would minimize the incidence and impacts of failure of septic systems due to construction on unsuitable soils.

Residential development can have minor short term effects on surface water quality from soil erosion occurring during construction. Measures contained in the Land Use Guidelines to minimize soil erosion were described under Section C.1 ("Impacts on Fisheries").

Impacts from Incompatible Uses

Under this alternative, it is estimated that about 85% of the river corridor would be covered by zoning ordinances precluding major incompatible uses which could have potentially significant effects on water quality. Such uses would include heavy industrial uses, junkyards, and landfills. There are no known proposals for heavy industrial uses, junkyards, or landfills in the corridor. In the unlikely event that these major incompatible uses are proposed in towns not in conformance with the guidelines, they would be blocked through actions by the States, the

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Delaware River Basin Commission or as a last resort through federal land acquisition. Negligible impacts from incompatible uses are expected.

Impacts from Recreational Facilities Development and Use

Limited short term soil erosion and siltation may occur from construction of new public recreational facilities at selected locations along the Upper Delaware. Under this alternative, three river rest areas, four fishing access sites, two bridge parking areas, and a visitor contact facility would be developed. In addition, the existing NPS headquarters complex would be completed, and two permanent ranger stations would be established. Preparation of professional engineering plans by NPS, and site plan review by local governments, would limit the amount of site disturbance during construction and minimize effects on water quality. Existing data indicates that impacts to surface water quality resulting from existing recreation use are negligible. It is unlikely that projected use levels would cause significant additional impact in part because of the provision of additional sanitary facilities. Negligible impacts from recreation use are expected.

Conclusion

Application of the provisions in the Land Use Guidelines through local zoning ordinances would help to maintain the high surface water quality of the river corridor. Minor increases in nutrients and fecal bacteria may occur in tributaries from increased construction of on-lot septic systems. Minor temporary localized effects may occur in certain tributary watersheds from soil erosion and sediment loading during residential construction. Negligible impacts are expected due to recreational facilities and use and from incompatible uses.

B. Impacts to Groundwater Quality

Introduction

Impacts to groundwater may result from a number of factors: see page from septic tanks in unsuitable soils, oil tank leaks, see page from industrial waste treatment or storage lagoons, pipeline breaks and landfills and salt storage. According to the Pennsylvania State Water Plan (Pennsylvania Department of Environmental Resources, 1983) primary sources of groundwater contamination in the Delaware Basin are landfill leachate and malfunctioning septic systems. The impacts to groundwater quality are expressed in the same relative terms used for surface water quality (see C.2.A.).

Impacts from New Residential Development

The fact that the majority of homes in the river corridor rely on individual septic systems, and that the majority of soils in the corridor are unsuitable for septic system disposal, indicates that there is potential for impacts to groundwater quality. However, DRBC data indicate that groundwater quality is good (see Table III.3). This may be due to the low density pattern of development in the river corridor, and the seasonal use of many homes. It is estimated that under this alternative about 85% of the river corridor would be covered by zoning ordinances in conformance with the Land Use Guidelines, which call for a 2 acre minimum lot size. This would maintain the present low density development pattern. Combined with the requirements for soil percolation tests for new development, this would help ensure that new development would have negligible impacts on groundwater.

Impacts from Incompatible Uses

As described above, development of incompatible uses such as landfills or industrial storage sites in the river corridor would likely have the greatest potential impact on groundwater. As in the case of surface water, it is estimated that about 85% of the river corridor would be covered by zoning ordinances precluding incompatible uses which could have potentially significant effects on water quality. There are no known proposals for heavy industrial uses or landfills in the corridor. In the unlikely event that these major incompatible uses are proposed in towns not in conformance with the guidelines, they would be blocked through actions by the states, the Delaware River Basin Commission or as a last resort through federal acquisition. Negligible impacts from incompatible uses are expected.

Impacts From Recreational Facilities Development and Use

Development of 3 river rest areas, 4 fishing access sites, 2 ranger stations and a visitor contact facility would have no impact on groundwater. All construction plans would include development of properly sited and designed septic disposal facilities or portable systems and thus would likely not impact groundwater quality.

Conclusion

Application of provisions in the Land Use Guidelines prohibiting incompatible uses and specifying minimum lot sizes would help to maintain the existing high quality of groundwater in the river corridor. Negligible impacts from new residential development, incompatible uses, and recreational facilities development and use are expected.

3. Impacts on Scenic Resources

Introduction

The scenic qualities of the Upper Delaware river corridor are largely a product of its diversity -- its blend of natural and cultural landscapes. Important scenic elements of the river corridor include rolling uplands, steeply sloping valley walls with dense forest cover, cultivated floodplains, and isolated settlements and hamlets, linked by the clear, free-flowing river. Certain elements of the landscape are of particular significance because of their role in defining the river and valley environments. The land along the banks of the Delaware forms the immediate environment of the river and helps to define its character: whether wooded embankment or floodplain, settled or farmed. The steeply sloping hills act as valley walls, defining the form of the valley, while ridgelines, found primarily along the corridor's boundary, visually define the valley's edge.

The primary impacts to the river corridor's scenic resources are caused by new residential, commercial or industrial development. These impacts would consist of visual intrusions to the character of the rural and natural landscape. For the purpose of this analysis, impacts of new development on scenic resources will be assessed by examining geographic features referred to as "sensitive areas." These are: 1) land within 100 feet of the river's mean high water line; 2) land areas with slopes of 15% or greater; and 3) ridgelines.

In an attempt to analyze past trends, development in the sensitive areas over a fifteen year period (1968-1983) was reviewed through examination of USGS quadrangle maps and aerial photographs. Overall, 654 new structures were built within the proposed boundaries of the river corridor, representing a 36% increase over 15 years. Of these new structures; 49% were built in sensitive areas: 35% on steep slopes, 8% within 100 feet of the river; and 6% in ridgeline areas (delineated in general terms on topographic maps). While future development may not occur to the same degree in each of these areas, the data indicate the potential for continued impacts to scenic resources.

Implementation of the Plan and Guidelines would not preclude new land uses (other than the identified incompatible uses, referencxe page 134 of the RMP) in the scenic, sensitive areas. In these sensitive areas, new land uses would be permitted subject to certain conditions which would have the effect of making those new uses unobtrusive from a scenic perspective. These conditions include: height limitations (35 feet), set back from the river's edge (100 feet), minimum lot size (2 acres), and maximum lot coverage (10%).

In towns not in conformance with the guidelines, new land uses would occur but the lack of conditional use review would likely result in new structures being built which would be visually obtrusive and have adverse impacts on the scenic quality of portions of the corridor.

Impacts on Scenic Quality of Riverbanks

The land area within 100 feet of the mean high water line constitutes approximately 1,800 acres, or 3% of the proposed corridor. It can also be defined in linear terms as about 147 miles of riverbank (including both sides of the river). Based on development trends and patterns, it is estimated that, within the river corridor, there will be 20-30 instances of new residential structures being built within 100 feet of the mean high water line, along with the 3 river rest stops and 4 fishing access sites.

Under the proposed action, it is assumed that 12 of the 15 towns would likely adopt zoning measures designed to control development within a 100 foot setback from the mean high water line. Conditional use review of new developments within this 100 foot riverfront area of the 12 towns would include requirements for setbacks from the river, height restrictions, minimum lot size, or maximum lot coverage. These measures would provide increased protection of the scenic resources of about 120 miles of riverbank (out of a total of 147) from visual intrusions caused by new residential and commercial structures. Therefore, it is expected visual impacts from these new structures, subject to conditional use review, would be negligible.

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Along the remaining 27 miles of riverbank (in towns not in conformance with the plan and guidelines) some new development would also occur. Here, new structures will be built, estimated at between 4 and 6 in number, which would not be in conformance with relevant portions of the guidelines, i.e., they might exceed height guidelines, maximum lot coverage, or density. The result would be negligible adverse visual impacts to the existing scenic character of the river corridor as a whole. However, while few in number as part of the total corridor, there may be minor localized adverse impacts to scenic qualities.

Impacts on the Scenic Quality of Steep Slopes

Slopes greater than 15% in grade constitute approximately 26,700 acres, or 45% of the proposed corridor's land area. Based on existing development trends and patterns, it is estimated that 100-120 houses would be built on steep slopes throughout the corridor.

Under this alternative, it is assumed that 12 of the 15 towns would likely adopt zoning measures requiring conditional use review and/or a professional engineer's plan for proposed structures on slopes of 15% or greater. Conditional use review of new developments on slopes of 15% or greater would include requirements for maximum coverage, minimum lot size, location of principal structures on slopes of less than 15%, and erosion control plans. These measures will provide increased protection of scenic resources in about 85% of the corridor, an area comprising about 80% of the total 26,700 acres of steep slopes. On these steeply sloped land areas, it is expected that the visual impacts on new structures, subject to conditional use review, would be negligible.

In the remaining steeply sloped areas, approximately 5,340 acres, some new development would occur. Here, new structures will be built, estimated at between 20 and 25 in number, which would not be in conformance with the plan and guidelines, i.e., they might exceed height guidelines, maximum lot coverage, or density. The result would be minor adverse visual impacts to the existing scenic character of the areas in which they are located.

Impacts on Scenic Quality or Ridgelines

Ridgelines define the visual boundary of the river valley, and structures that intrude upon or visually break the natural ridgeline can have adverse scenic impacts on the landscape. Currently, it is estimated that there are about 20 structures built on or close to ridgelines.

Under the proposed action, it is estimated that 12 out of 15 towns would likely adopt zoning measures requiring that no buildings are located so close to the ridgeline as to exceed the height of the treeline when viewed from the river or requiring a maximum building height of 35 feet. In these 12 towns with such zoning measures, comprising about 85% of the corridor, it is expected that future total ridgeline development would be reduced or altered in size or location with a resultant negligible impact on scenic qualities.

In the remaining 15% of the corridor, some new development, estimated at 2 to 3 units, would occur on ridgelines. Because such structures would be rare and isolated occurrences, adverse scenic impacts from them would be negligible.

Impacts on Scenic Quality from Major Incompatible Uses

There are no known proposed major incompatible uses (see Table II.3) within the corridor. In the event that major incompatible uses were proposed in towns not in conformance with the guidelines, they would be blocked through actions by the states, the Delaware River Basin Commission, or as a last resort, through federal acquisition. No impacts from new incompatible uses on scenic quality will occur.

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Conclusion

The Upper Delaware valley landscape in 20 years will be similar to existing patterns, types, and conditions. Some limited development (140-170 structures) would occur in sensitive scenic areas, including the riverfront, ridgelines, and steep slopes throughout the river corridor.

In 85% of the corridor, town regulations would serve to minimize and mitigate adverse impacts to scenic, sensitive areas by the conditional use review of new development and by other measures such as minimum lot size, setback requirements, and maximum lot coverage. Cumulatively, the effect of the town ordinances would be to protect scenic values throughout much of the corridor. Incompatible uses, which have the greatest potential for adverse scenic impacts, would be avoided throughout the entire corridor, either by local ordinances or actions of other levels of government.

4. Impacts on Recreation

Introduction

A program for recreation management has been developed as part of the proposed plan and Water Use Guidelines. The intent of the program is to provide facilities which meet basic needs and to manage existing river uses and activities to provide high-quality recreational opportunities.

Recreation management focuses on water related activities during the peak season of May (Memorial Day) to September (Labor Day). Because much of the corridor consists of private land, land-based activities are managed primarily by private landowners and businesses. NPS jurisdiction is limited to activities in and on the water and that small acreage owned or leased by the Service. Boating, fishing and swimming are the primary water-based activities which account for about 77% of total visitation. The remaining 23% includes activities such as sight-seeing, hiking, and picnicking. Most of the visitors who come to canoe or fish stay for more than one day (Conference of Upper Delaware Townships, 1984) and 60% of the visitors camp near the river (Dawson, et al, 1981) making camping an important activity as well.

Under this alternative, overall carrying capacity, or limits on levels of recreational use, would not be set at this time. Carrying capacity is basically the amount of use an area can sustain while maintaining both environmental and social quality. Under the provisions of this plan, recreation use would be comprehensively studied over the next few years. Appropriate levels of recreation use would not be determined until this study is complete. Additional monitoring of river use is also envisioned. Establishment of the Upper Delaware Council would provide the forum for future decision-making.

The Water Use Guidelines and recreational management actions proposed in the RMP were based on the analysis of three 1984 surveys (users, livery operators and landowners) and available data regarding existing facilities. The guidelines focus on facility type and distribution, rather than facility size or capacity. In addition to facility development, improved education and enforcement programs were identified as additional measures needed to alleviate recreation-related problems.

The facility guidelines (RMP, pp. 84-88) can be summarized as follows:

1 public access area (an area 5-7 acres in size which includes a parking lot, comfort station, phone, map, trash containers, boat launch, and limited picnicking) every 8-11 miles.

1 river rest stop (an area about 3 acres in size and reached by watercraft which includes a map, trash container and comfort station) every 4-6 miles. NOTE: public access areas also serve as river rest stops.

4 fishing access points (small, preferably privately owned 2 acre sites, with limited off-road parking and easy shoreline access) specifically in the areas of Knight's Eddy, Pond Eddy, Handsome Eddy, and below Cedar Rapids.

Swimming facility guidelines were not proposed. Under this alternative, it is assumed that camping facilities and boat liveries would be provided by the private sector in accordance with local regulations except for the proposed campsite on state lands.

There are eight existing public river access sites in the river corridor. These sites already meet the public river access guidelines of one every 8-11 miles.

The addition of the three proposed river rest stops (along with the 8 public river access sites) would provide a rest stop every 6-7 miles, slightly less than recommended in the facility guidelines. However, the 3 proposed river rest stops would be located in the more heavily canoed sections of the river, between Narrowsburg and Port Jervis. According to the New York Department of Environmental Conservation, 62% of the canoe trips in 1972-82 took place between these points. In this section, the additional river rest stops and the existing public access sites would meet the proposed facility guidelines.

Environmental Consequences

A. Impacts on Recreation Opportunities

In order to estimate whether the existing and proposed facilities will meet future projected recreational needs, this analysis focuses on the three major categories of facility needs:

1. Canoe Access Areas
2. Fishing Access Areas
3. Campgrounds

1) Canoe Access Areas

Canoeing is the major river recreation activity. Between 1980 and 1985 an average of 67% of the visitors to the area canoed, and it is expected that this percentage will continue in the future.

There are currently eight existing public canoe access sites and 28 such sites owned by commercial canoe livery operators. No data is available regarding levels of use at the individual access sites.

A 1979 survey (Dawson et al, 1981) found that 90% of the craft on the river were commercially owned, while the other 10% were individually owned. In 1984 the Urban Research and Development Corporation (consultants to COUP) estimated that 13% of all canoeists used their own craft. Based on these figures, which appear to show an increase in use of privately owned craft, it is assumed that over the course of the planning period, roughly 15% of all canoeists will use their own craft and further, that most of these people would use public access sites.

Environmental Consequences

The following figures represent estimated past and future use trends (they are consistent for all three alternatives).

<u>Year</u>	<u>Estimated # of canoeists (67% of total visitation)</u>	<u>Estimated # of canoeists using their own craft and using public access sites</u>
1983	151,392	22,709
1985	105,666	15,850
1990	130,851	19,628
2005	189,543	27,831

(Total visitation figures are shown on table III.6)

The capacity of public access sites is limited primarily by the number of parking spaces they provide. Canoeists generally park for most of the day, since canoe trips average about 6 hours in length. Facility needs are most critical during peak use days, which occur on summer weekends. It can be roughly estimated, based on visitor use statistics, that a peak use day represents approximately 3% of total annual use. Assuming that this percentage will remain constant the number of canoeists using public access sites on a peak use day can be estimated as follows:

<u>Year</u>	<u>Estimated # of canoeist using public accesses and their own craft</u>	<u>Estimated # of canoeists with their own craft using public accesses on a peak day</u>
1983	22,709	681
1985	15,850	476
1990	19,628	589
2005	27,831	835

The total maximum daily capacity of the eight public access sites is estimated as follows:

<u>Site</u>	<u># of Parking spaces</u>
1. Lackawaxen, PA	81
2. Narrowsburg, NY	64
3. Skinners Falls, Cohecton, NY	52

Environmental Consequences

4. Damascus, PA	23
5. Callicoon, NY	45
6. Callicoon, PA	20
7. Buckingham, PA	18
8. Narrowsburg, NY	<u>12</u>
Total	315

Maximum daily capacity can be estimated on the basis of number of parking spaces, multiplied by 3 which represents the average number of persons per car and multiplied by 1.5 which represents the number of times a parking space can be used per day. Based on these estimates, maximum capacity at the 8 existing sites is approximately 1418 people. As can be seen, this figure is well in excess of the projected peak day access needs for the year 2005 (835 canoeists).

Conclusion

Visitor use capacity at the existing public access sites exceeds projected needs. The river management plan does not recommend any additional public sites; implementation of the plan would have no effect on the number of access sites or the level of use of the river.

2) Boating/Fishing Access Areas

Anglers gain access to the river at public access sites and on private lands, by permission from landowners. Anglers fish from the shorelines, wade in the river and fish from boats. Most anglers fishing for trout or bass can be found on the river during the early morning and evening hours during the spring, summer, and fall. Shad fishing occurs all day during the annual spring migration.

NPS statistics show that fishing accounted for about 6% of the total visitation between 1980-1985. NY Department of Environmental Conservation statistics show an increase in fishing between 1978 and 1982 and both Pennsylvania and New York Statewide Comprehensive Outdoor Recreation Plans project about a 20% increase in fishing over the next 20 years. For the purpose of this analysis, it is assumed that fishing would account for 10% of total annual future use in the area. Based on overall visitation projections, the trend in fishing is estimated as follows:

<u>Year</u>	<u>Total visitation</u>	<u>estimated # of anglers</u>
1983	225,959	9141*
1985	157,711	10,910*
1990	195,300	19,530
2005	282,900	28,290

*based on visitor counts

As with the analysis of canoe use, it is assumed that a peak fishing day will account for 3% of total annual fishing, as follows:

<u>Year</u>	<u>Estimated # of anglers/year</u>	<u>Estimated # of anglers on a peak use day</u>
1983	9141	274
1985	10910	327
1990	19530	585
2005	28290	849

According to NY Department of Environmental Conservation estimates the distribution of the anglers would be as follows:

<u>Location</u>	<u>% of anglers</u>	<u># of public access sites</u>
Hancock to Callicoon	25	3
Callicoon to Narrowsburg	13	4
Narrowsburg to Port Jervis	63	1

Source: NY DEC Technical Report 83-5 (1983)

It is difficult to assess the capability of existing and proposed facilities to accommodate anglers because of the variety of access approaches used by anglers and because there is no data on the number of anglers using public access sites. For these reasons, no attempt was made to quantitatively assess the ability of access sites to meet future needs. An examination of the trends shows that although most of the fishing takes

place in the southern section of the river, the fewest public access points are currently available in that section. It appears that the public access facilities south of Narrowsburg are inadequate for fishing access purposes by comparison to the other areas.

Conclusion:

The proposed RMP recommends that four fishing access sites be developed south of Narrowsburg in order to resolve access, visitor safety, and landowner concerns. With the development of these sites, current visitor management concerns would be addressed, including existing angler needs for adequate and safe public access.

It is not anticipated that the development of these four sites would encourage or lead to an increase in fishing use of the river.

3) Campgrounds

As noted, approximately 60% of all recreational visitors to the Upper Delaware camp overnight. Camping facilities are provided almost exclusively by the private sector. In 1985, 26 campgrounds with about 2392 sites, having an average of 92 sites per campground, were in operation. Based on total visitation figures, the following represents the number of overnight campers:

<u>Year</u>	<u>Estimated # of visitors</u>	<u>Estimated # of visitors camping</u>
1983*	225,959	135,575
1985*	157,711	94,627
1990	195,300	117,180
2005	282,900	169,740

*actual visitation

As with canoe access needs, campground facility needs are most critical during peak use days which occur on summer weekends. Based on visitation statistics, a peak use day represents approximately 3% of total annual use. Using this percentage, the number of campers on a peak use day can be estimated as follows:

Environmental Consequences

<u>Year</u>	<u>Estimated # of campers</u>	<u>Estimated # of campers on a peak day</u>
1983	135,575	4067
1985	94,627	2839
1990	117,180	3515
2005	169,740	5092

To roughly determine the number of camping facilities needed to meet peak requirements, the projected number of campers can be compared to the projected number of available campsites. Based on an average of 3 campers per campsite, the maximum daily capacity of total campsites can be estimated at 7176 people (3 X 2392 sites).

<u>Year</u>	<u>Estimated # of campers on a peak day</u>	<u>Estimated # of campsites needed</u>
1983	4067	1356
1985	2839	946
1990	3515	1172
2005	5092	1697

The above analysis indicate that existing campsites would be able to accommodate projected levels of future use.

Conclusion

Because existing campgrounds would accommodate anticipated future needs, the proposed RMP does not recommend new public sites. The plan would have no affect on the number of camp sites or the level of camping use.

B. Impacts to Quality of Experience

The 1984 recreational user survey (conducted by the Conference of Upper Delaware Townships) found that the river corridor's landscape and water quality were the key characteristics that made the recreation experience a pleasant one. The proposed Land Use Guidelines have provisions aimed at conserving these qualities through local government land use controls (see Section 4 of this Chapter).

Environmental Consequences

The additional river rest areas proposed in the RMP would address a major problem noted by users; lack of river facilities. The quality of the recreation experience would be enhanced by the provision of these facilities, particularly in the more heavily used section below Callicoon.

Users also noted the need for information and directional signs and improved safety. The proposed plan calls for development of a visitor contact facility in the vicinity of the Mongaup River. A 1981 Cornell University study (Dawson et al, 1981) found that nearly 60% of non-residential recreational users did not plan their trip or planned only in a general way before coming to the river area. Nearly one third of survey respondents found tourist and recreation information to be inadequate. Development of the visitor center at a major southern approach to the river area would meet the information needs of a significant percentage of non-resident recreational users, and is projected to increase the existing level of visitor contacts by 40%. The proposed interpretation program associated with the Delaware & Hudson Canal and other aspects of the river and its historic uses, would enhance visitor awareness of the natural and cultural resources of the Upper Delaware.

The existing licensing program for commercial liveries would be continued. Approximately 85% of the total number of recreational boaters obtain watercraft for use on the Upper Delaware through commercial boating liveries. Another 5% of boaters obtain watercraft through the recreational camps. Continuation and expansion of this program would ensure that safety standards would be enforced and that information on boating techniques, water courtesy and conditions would be provided to nearly all recreational boaters.

Conclusion

The quality of the recreation experience will be maintained or enhanced under this alternative.

C. Impacts on Visitor Management

The survey of landowners (COUP, 1984) found that litter was a major concern, with 44% of landowners noting it as a problem. The litter problem is perceived as being primarily visitor or recreational user related. However, there have been occurrences of dumping and careless disposal of trash which contribute to the problem.

Local law enforcement statistics indicate that trespass incidents occurred more frequently as use levels increased. It follows that as future use increases, so will trespass problems. Since NPS has no jurisdiction on private lands, there are no violation notices served by NPS rangers on private land and all trespass problems are dealt with locally.

The proposed plan recommends several measures to minimize litter and trespass problems. Educational programs by the Upper Delaware Council, NPS, and river-related businesses would inform river users of a carry in/carry out policy and build awareness about littering and trespass. Federal, state and local cooperation in river patrols would result in greater detection of these acts. A centralized NPS phone system will make it easier for landowners and others to report incidents. In addition, improved radio communication would enable appropriate local, state and NPS law enforcement personnel to look into reported problems and respond more quickly. Voluntary clean-ups sponsored by area business and private organizations would also help reduce the amount of litter found along the riverbanks. The stricter enforcement of existing laws would likely deter violation, particularly because 73% of river users at present are repeat visitors. The provision of additional facilities would also contribute towards minimizing trespass and litter on private property by drawing users away from private lands and providing receptacles for trash.

Conclusion

Increased public educational programs combined with improved communication, would result in improved law enforcement and a decrease in littering and trespass. Impacts on landowners from these problems would be lessened.

5. Impacts on Cultural Resources

A. Impacts on Archeological Resources

Impacts of NPS facility development

The development by NPS of the facilities described in the proposed plan, including a major visitor contact facility, bridge parking areas, and river rest stops, has the potential to alter, damage, or destroy undiscovered surface or subsurface archeological resources. In accordance with NPS standards, all development with potential for ground disturbance would be preceded by an archeological clearance to ensure that there were no significant archeological resources within a project's area of effect, or that if present, such resources would not be adversely impacted. Any significant resources that would be adversely affected would undergo mitigation in accordance with the NPS Cultural Resource Management Guidelines (NPS-28), and in compliance with the Archeological Resource Protection Act of 1979 and the National Historic Preservation Act of 1966.

Impacts of NPS management and interpretation

The RMP proposes acquisition and interpretation of one archeological site, the rock shelter at Ten Mile River. This site is part of a 40 acre parcel, part of which would be used as a river rest stop. This action would protect this site, and would increase public awareness of the area's prehistory and archeological resources. No other privately owned sites are proposed for any management actions in the RMP, although it is recommended that sites listed in the Cultural Resource Survey be nominated to the National Register of Historic Places, given property owners' consent.

Impacts from recreational use

Future recreational use of the river, if unmanaged, could cause damage to archeological resources through soil compaction, digging, and vandalism. The provision of adequate numbers of river rest stops called for in the RMP should lessen the unauthorized use of private lands by recreationists. Continued enforcement by local police and constables of ordinances against littering and trespass should also help to avert disturbances to sites on private lands. Negligible impacts from recreational use are expected.

Impacts from new development

Increased development, both residential and commercial, has the potential to significantly alter, damage or destroy undiscovered archeological resources. This problem would be especially critical on the floodplain terraces along the river, used at present mainly as cropland and pastureland, where archeological resources tend to be most abundant. Conversion of agricultural lands to residential or commercial uses would be allowed to occur under this alternative. Local zoning controls on density and lot coverage in conformance with the Land and Water Use Guidelines would not preclude continued low-density residential and commercial development on agricultural lands and on floodplain terraces. Since no further archeological surveys are proposed for the river corridor, the exact number and location of many archeological sites is likely to remain unknown, but some losses of such sites would likely occur.

Efforts by NPS and state and local agencies to educate landowners about the proper treatment of archeological resources would help to alleviate this problem. Development in floodplain areas would continue to be limited in certain communities through floodplain development ordinances, prepared in compliance with the National Flood Insurance Program. All 15 Upper Delaware communities participate in this federal program, and 8 towns have implemented ordinances restricting or prohibiting new development in the

floodplain. These ordinances would limit development only in the designated 100-year floodplain, which does not encompass all of the floodplain terraces where archeological sites are commonly found.

Based on past trends, most new residential development in the river corridor would occur in forested upland areas, where concentrations of archeological resources appear to be rare, according to the Cultural Resource Survey. Service oriented businesses such as motels and related commercial recreational facilities would be an incompatible use in scenic segments and a conditional use in recreational segments. Review of conditional uses by the Upper Delaware Council would help to ensure protection of archeological resources, in areas where the presence of such resources is known.

Impacts from incompatible uses

The major action that would occur under this alternative is the prohibition of new incompatible land and water uses (identified in Chapter II.B) within the river corridor. Most potential incompatible uses would involve major ground disturbances that could disturb archeological sites. Under this alternative it is estimated that 12 of the 15 Upper Delaware towns, encompassing about 85% of the corridor, would be expected to enact local ordinances prohibiting these incompatible uses. As previously described, there are no known proposed incompatible uses and trends shown that major incompatible uses are unlikely to occur. In the event that major incompatible uses were proposed, they would be blocked.

Conclusion

The prohibition of incompatible uses in the corridor would remove a potential source of major disturbances to archeological resources. There would be positive effects on archeological resources from management and interpretation of the Ten Mile River site, and from public education and interpretation programs. However, archeological sites throughout the

entire river corridor may suffer localized adverse effects from new residential or commercial development, especially on floodplain terraces. Negligible impacts from recreational use and facility development are expected.

B. Impacts on Historical Resources

Introduction

A wide variety of historic sites are found in the Upper Delaware river corridor, ranging from buildings and structures still in use to the surface and subsurface remains of buildings, sites and structures. Many of the latter group are historic engineering and industrial sites, the majority of which are located on private lands.

Impacts of NPS facility development

The RMP proposes development of river recreation and management facilities by NPS (listed in Chapter II). None of these facilities involve the removal or alteration of any known historic buildings or structures. However, as in the case of archeological resources, any new development has the potential to disturb undiscovered historical remains. An archeological clearance would ensure that any such resources, if present, would not be adversely impacted, or that such impacts would undergo mitigation.

Impacts of NPS management and interpretation

NPS management actions are identified for a number of sites in the proposed plan (listed in Chapter II). These include owning and managing the Roebling Bridge, Delaware and Hudson Canal Locks 72 and 54, Zane Gray House and leasing the Arlington Hotel for office space and visitor services. The RMP proposes other sites for management by state, local and private interests. The likelihood of the future protection, stabilization or restoration of these sites would be enhanced.

The proposed plan calls for coordination between NPS, the Upper Delaware Council, and state and local government agencies to provide technical assistance in the protection and interpretation of historic resources. This type of technical assistance would take the form of landowner technical assistance programs, funding for historic building surveys, education programs, and assistance with nomination of significant properties to the National Register of Historic Places. These actions would have positive impacts on historic resources by fostering increased government recognition and public awareness of their importance.

Impacts from recreational use

Future recreational use of the river could cause damage to historic resource sites from vandalism or overuse in the corridor. Improved coordination of river patrols called for in the proposed plan would help to mitigate this problem, while continued enforcement by local police and constables of ordinances against littering and trespass could lessen the disturbance to resources on private lands.

Impacts from new development

Increased development, both residential and commercial, has the potential to significantly alter, damage or destroy surface or subsurface remains of historic resources. Local zoning controls on density and lot coverage in conformance with the Land and Water Use Guidelines would not preclude continued low-density residential and commercial development. Moreover, private owners of historic properties are free to remove or alter such structures as they wish. Interpretive programs by NPS, the states and local organizations, which can aid property owners in restoration of historic buildings, should increase public interest in the restoration or protection of important historic sites.

Impacts from incompatible uses

Most potential incompatible uses identified in the RMP would involve major ground disturbances that could disturb subsurface remains of historic sites. Under this alternative it is assumed that 12 of the 15 Upper Delaware towns, encompassing about 85% of the corridor, would be expected to enact local ordinances prohibiting these incompatible uses. As discussed under Part B of this section, major incompatible uses are unlikely to occur in the remaining 15% of the corridor.

Conclusion

The prohibition of incompatible uses in the corridor would remove a potential source of major disturbances to remains of historic resources. There would be positive effects on historic resources from NPS management of the Roebling Bridge, D&H Canal Locks, and Zane Grey House, and cooperative management of identified sites and from public education and interpretation programs. Negligible impacts from recreational use are expected with minor impacts from new development.

6. Economic Impacts

A. Impacts on Land Values

Coughlin, Keene, and Associates determined in their 1985 study (see Chapter III/G.7) that implementation of the proposed plan would not affect land values within the river corridor. The study identified these preference patterns among actual and potential purchasers of land in the Upper Delaware River corridor:

purchasers of second homes - 3 or more acres

purchasers of year round homes - 2-5 acres

These preference patterns indicate that implementation of the proposed RMP and Guidelines (particularly the 2 acre minimum lot size standard contained

in the Guidelines) would not materially interfere with the buyers' market, since most purchasers show a preference for lots greater than 2 acres in size.

Coughlin and Keene's analysis does suggest that knowledge of future implementation of the RMP has resulted in, and may continue to result in, an increase in land prices and in the amount of money that purchasers are willing to pay for available land. The assumption underlying this conclusion is that increased scarcity of land and increased environmental protection results in increased competition for available land, which drives prices higher. Coughlin and Keene concluded that this phenomenon would affect the buyers' and sellers' market as follows:

Buyers would be willing to pay higher prices for land:

- (1) because of assurance that environmental quality would be maintained.
- (2) since no new smaller lots would be created, competition among purchasers for these smaller lots would increase.

Sellers would increase prices of land because:

- (1) owners of 5 acre lots would realize that future subdivision was not possible. In order to compensate for potential economic loss, prices would be increased.
- (2) owners of lots "grandfathered" at less than 5 acres would realize that they possess a scarce commodity and can command a higher seller price.

It should be noted that Coughlin and Keene's analysis assumed a minimum lot size of 5 acres outside hamlet areas, as is the case in the existing 1981 Land Use Guidelines. The revised Land Use Guidelines call for a minimum lot size of 2 acres outside hamlets. However, the rationale followed by Coughlin and Keene would still appear to hold true, with the exception that

less "scarcity" of land would result, since moderately-sized (2-5 acre) lots would still be available under this alternative.

Conclusion

Implementation of the proposed RMP would have a negligible effect on the land market, since minimum lot of 2 acres outside hamlets would be in accord with the preferences of most potential buyers.

B. Impacts on Municipal Finances

Under this alternative, there would be two principal impacts on municipal finances: (1) property tax loss due to government land acquisition, and (2) costs associated with developing and administering local land use regulations necessary to conform to the land use guidelines. With regard to land acquisition, the National Park Service would acquire approximately 124 acres of land for construction of facilities and access points.

The effects of land acquisition on municipal finances will be negligible. Only 124 acres, out of a total of 55,574.5 within the proposed boundary, are proposed to be acquired, or less than 1/4 of 1% of the river corridor. Further, that acquisition is mostly divided between 40 acres in Tusten and 70 acres in Deer park. The former is now owned by the Boy Scouts of America and is already tax exempt. The 70 acres to be acquired in Deer Park represent less than 2/10 of 1% of the town's total acreage. Munley and Aronson's study "The Impact of the River Management Plan on the Finances of Local Governments in New York and Pennsylvania" (1985, River Management Plan, Appendix F) found that Federal land acquisition projected in the plan would marginally affect the tax base of 7 of the corridor towns and 5 of the corridor school districts. The maximum impact in any one town, as projected by Munley and Aronson, would affect less than 1% of its tax base.

In addition, property tax losses would be covered, at least in part, by the federal in-lieu taxes program, 31 U.S.C. 6904. This program reimburses local governments and school districts for property tax losses. To qualify for reimbursement, the lands acquired must have been subject to local real property taxes within the five year period preceding acquisition. Federal reimbursement is based on 1% of the fair market value of the lands at the time of acquisition. Reimbursement payments for each acquisition are made annually for five years following each acquisition.

In towns not in conformance with the Plan and Guidelines, estimated to be 3 under this alternative, clear and direct threats to land resources would be dealt with through actions of the county and state governments, or, as a last resort, through land acquisition, to a maximum of 7,340 acres. However, it is highly improbable that this total will ever be approached. Should any land acquisition occur, lands so acquired would be resold with restrictive covenants in the deed to preclude any future recurrence of the threat. This resale provision returns the lands to private ownership and the tax base of the local municipality. Hence, there would be only a negligible impact to the town's total tax base during the period the acquired property is being resold.

A second potential cost to local governments would result from implementing local land use regulations in conformance with the Land Use Guidelines. Munley and Aronson's study concluded that the annual cost to a town of implementing zoning in conformance with the plan and guidelines would range from \$1,500 to \$3,500. In terms of the percentage of a town's overall expenditures that this would likely represent, Munley and Aronson concluded that it would range from less than 1% (0.27%) of a town's total expenditures (for Deerpark) to 3.7% (for Buckingham). Not all of the zoning costs for all towns would be directly attributable to adoption of the river management plan, since eleven of the towns already have some form of zoning resolutions (six of them having had zoning codes prior to 1980).

Environmental Consequences

An associated one-time cost would be for initially developing or revising land use regulations to conform to the plan and guidelines. The National Park Service, along with state and county planning offices, would provide both financial and technical assistance to the towns to cover most, if not all, of these costs.

Levels of recreation visitation to the Upper Delaware, as well as levels of permanent and second-home development, will not vary as a result of the proposed river management plan. As a result, the level of municipal expenditures that would result from these activities, projected over a ten year period, as set out in Table III.17 of this EIS, is not expected to differ under Alternative 1.

Conclusion

Costs to municipal governments as a result of property tax loss due to federal land acquisition would be minimal or less than 1% affecting, at most, 0.87% of any one town's property tax base, and 0.5% of any one school district's tax base. Impacts on municipal finances due to costs associated with developing and implementing local land use regulations would also be minimal.

7. Impacts on the Bald Eagle

The Mongaup River, a tributary of the Upper Delaware, is a significant wintering habitat for bald eagles. The operation of a series of reservoirs on the Mongaup River provides open water for fishing in the winter and the surrounding lands provide undisturbed roosting habitat. Approximately 50 bald eagles are found in the area of the Mongaup River in the winter.

Bald eagles have also been sited in the vicinity of the mouth of the Mongaup River and along the adjacent lands of the southern portion of the Upper Delaware corridor. This discussion considers possible impacts to the bald eagle habitat in the Towns of Deerpark and Lumberland, New York and

Environmental Consequences

Westfall, Pennsylvania. (The Upper Delaware corridor is only a small part of the Mongaup River bald eagle habitat; the eagles mostly frequent the Mongaup reservoirs outside the river corridor.)

Factors which might adversely impact the bald eagle include loss of forest land, principally along the river's edge; intensive land use developments along the river; and human activities which might disturb the birds.

Under this alternative, it is assumed that the three southern corridor towns have or would adopt zoning regulations consistent with the plan and guidelines. These would include 2-acre minimum lot size, a 100-foot setback for structures along the river, or conditional use review of such structures, limitations on lot coverage, and limitations on clear-cutting over two acres. Incompatible land uses would be prohibited.

Additionally, any specific plans for the National Park Service visitor use facilities, including the proposed visitor contact center and fishing access sites, would be coordinated with the Fish & Wildlife Service and state wildlife management agencies. No facilities would be constructed in any area, if, as a result of this coordination, they would be determined to have adverse impacts on the bald eagle population; further, these facilities are not projected to increase recreation use of the area.

The New York State Department of Environmental Conservation is currently involved in a research project to determine the current status of the bald eagle population. The National Park Service will offer, as part of its continuing research and monitoring efforts in the corridor, to cooperate and participate with New York State Department of Environmental Conservation in these ongoing and future research efforts.

If this research of further coordination with wildlife management agencies indicates any potential adverse impacts from development or visitor use facilities to the bald eagle population, the National Park Service will take steps in cooperation with the Fish & Wildlife Service and appropriate state agencies to mitigate these impacts. For non-federal projects, this will be done through the participation of the National Park Service and states on the Upper Delaware Council through other appropriate coordination mechanisms. The National Park Service, in cooperation with the States, will seek to use all existing authorities to assure that no adverse impacts occur with respect to bald eagles.

The Fish & Wildlife Service has stated that there is no critical habitat for the bald eagle in the area and that no biological assessment or Section 7 consultation under the Endangered Species Act (87 Stat. 384, as amended, 16 U.S.C. 1531 et seq.) is required.

Conclusion

With these measures at the local, state, and federal levels, under alternative 1, it is anticipated that the existing habitat of the area would be protected and the existing level of use of the area by the bald eagle would be maintained.

D. Alternative 2: No Action, or Continuation of Interim Management

This analysis is based on the premise that certain existing regulations conserve resources. The existing regulations are the basis for this analysis. The impacts on the sport fishery are expressed in relative terms as defined in Chapter IV Section C.1.

1. Impacts on the Sport Fishery

A. Impacts to Shad

Within the past 15 years, 25% more structures units have been built in the river corridor. Based on the present excellent water quality readings and

the opinions of fisheries biologists in New York and Pennsylvania, present levels of residential and commercial development have had negligible impacts on shad. The number of residential structures within the Upper Delaware River corridor is projected to increase by approximately 25% during the next 20 years, an increase of about 825 units.

Local land use provisions regulating new construction on steep slopes would continue to be in effect in about 30% of the river corridor. Similarly, zoning provisions controlling new construction within 100 feet of the river would cover about 30% of the corridor. The regulations would help prevent erosion and reduce the likelihood of sedimentation in important habitat and spawning areas. Although scattered erosion problems associated with new construction could be expected in the remaining 70% of the corridor it is unlikely that sediment loads would increase to the point of impacting shad spawning and nursery areas in the main stem. A minor impact from projected new development on shad spawning habitat would occur.

Incompatible uses as listed in the proposed Land and Water Use Guidelines can have adverse effects on shad fisheries. Specific land uses with potentially deleterious effects on the fisheries of the Upper Delaware include impoundments, channel modifications, and power plants which could impede shad migration and landfills, major mining operations, and heavy industrial uses which could negatively impact water quality. Section 7 of the National Wild and Scenic Rivers Act precludes federally licensed or funded water resource projects (including impoundments and channel modification projects) which would alter the free-flowing characteristics of the Upper Delaware. It is estimated that new major mining operations and heavy industrial uses would continue to be precluded by local land use ordinances in approximately half of the river corridor.

There are no known proposed major incompatible uses (see Table II. 3) in the half of river corridor with no local regulation of these uses. However, there is a possibility that these uses could occur due to the lack of local regulation of these uses. Should these major incompatible uses occur, minor to moderate impacts on shad habitat would be expected.

Some very localized temporary disturbances to shad habitat may occur from wading in the river and canoeing. However, even with projected use levels it is unlikely that adverse impacts to shad habitat would occur. A negligible impact on shad spawning habitats from recreation use could result.

Conclusion

The overall quality of Upper Delaware shad fishery would be maintained through the requirements of Section 7 of the Wild and Scenic Rivers Act and through local zoning. Minor impacts from erosion and sediment due to new development would occur and minor to moderate impacts from major incompatible uses would be expected. Negligible impacts from recreation use could occur.

B. Impacts to Trout

The number of structures within the Upper Delaware River corridor is projected to increase by approximately 25% (approximately 20 units) during the next 20 years along the trout habitat and spawning areas which are located north of Callicoon (25 miles). Based on existing local regulations it is estimated that zoning in conformance would continue to occur in about 25% of the corridor north of Callicoon. The regulations would help to prevent erosion and sedimentation as a result of construction activities from impacting important trout habitat and spawning areas. In the remaining 75% of the corridor development could occur which would cause scattered erosion and possible sedimentation problems in the tributaries. As a result, minor to moderate impacts to trout spawning and nursery habitat would result.

Major incompatible uses listed in the proposed Land and Water Use Guidelines (see Table 11.3) can have adverse effects on trout habitat and spawning areas. Specific land uses with potentially deleterious effects on the fisheries of the Upper Delaware include impoundments, channel modifications, power plants, landfills, major mining operations, and heavy industrial uses. Section 7 of the National Wild and Scenic Rivers Act would preclude federally licensed or funded water resource projects (including impoundments and channel modification projects) which would alter the free-flowing characteristics of the Upper Delaware. New major incompatible uses such as mining operations and heavy industrial uses would continue to be precluded by local land use ordinances in approximately 25% of the river corridor north of Callicoon.

There are no known proposed major incompatible uses in the 75% of river corridor north of Callicoon with no local regulation of these uses. However, there is a possibility that these uses could occur due to the lack of local regulation. Should these major incompatible uses occur, minor to moderate impacts on trout habitat would be expected.

Negligible impacts from recreation use on trout spawning habitats are expected based on projected use levels and patterns.

Conclusion

The Upper Delaware trout fisheries would be maintained through the requirements of Section 7 of the Wild and Scenic Rivers Act and through local zoning consistent with the Land and Water Use Guidelines. Minor to moderate impacts to trout spawning and nursery habitat caused by erosion and sedimentation on a few tributary streams may occur from residential construction activities and from incompatible uses would be expected. Negligible impacts from recreation use are expected.

C. Impacts to Bass

Land use activities that cause soil erosion and the resultant siltation of important habitat and spawning areas which occur primarily in tributaries can adversely affect the bass population. Increased rates of soil erosion can result from vegetative clearing and construction activities on steep slopes and on riverbanks and ridgelines. Large sediment loads carried by stormwater runoff can cause siltation of bass spawning and nursery habitat. Based on the present excellent water quality readings and the opinions of fisheries biologists in New York and Pennsylvania, present levels of residential and commercial development have had minimal impacts on bass. The number of residential structures within the Upper Delaware River corridor is projected to increase by 25% (approximately 575 units) during the next 20 years along the primary bass habitat and spawning areas located below Callicoon.

Based on existing zoning patterns, local land use provisions regulating new construction on steep slopes would continue to occur in about 50% of the river corridor below Callicoon. Zoning provisions controlling new construction within 100 feet of the river, would continue to cover about 40% of that portion of the corridor below Callicoon. These regulations would help to prevent erosion and sedimentation as a result of construction from impacting important habitat and spawning areas. Scattered erosion problems associated with new construction could be expected in the remainder of the corridor. As a result, minor to moderate impacts to bass spawning habitat might occur on a small number of the lower reaches tributary streams below Callicoon.

Major incompatible uses listed in the proposed Land and Water Use Guidelines can have adverse effects on bass habitat and spawning area. Specific land uses with potentially deleterious effects on the fisheries of the Upper Delaware include impoundments, channel modifications, power plants, landfills, major mining operations, and heavy industrial uses.

Section 7 of the National Wild and Scenic Rivers Act would preclude federally licensed or funded water resource projects (including impoundments and channel modification projects) which would alter the free-flowing characteristics of the Upper Delaware. New major incompatible uses such as mining operations and heavy industrial uses would continue to be precluded by local land use ordinances in about 65% of the river corridor south of Callicoon.

There are no known proposed major incompatible uses in the 35% of the river corridor south of Callicoon with no local regulation of these uses. However, there is a possibility that these uses could occur due to the lack of local regulations. Should these major incompatible uses occur, minor to moderate impacts on bass habitat would be expected. Some very localized temporary disturbances to bass habitat may occur from wading and canoeing. However, a negligible impact on bass habitats is expected based on future use levels and patterns.

Conclusion

The Upper Delaware bass fisheries would be maintained through the requirements of Section 7 of the Wild and Scenic Rivers Act and through existing local zoning. Minor to moderate impacts to bass spawning areas and habitats on a few tributary streams may occur from residential construction activities from incompatible uses. Negligible impacts from recreation use are expected.

2. Impacts on Water Quality

This analysis is based on existing local land use regulations because these regulations are the primary actions affecting residential development. Impacts on water quality are expressed in the same relative terms as defined in Chapter IV Section C.2.

A. Impacts on Surface Water Quality

Impacts from New Residential Development

Under this alternative, it is estimated that towns encompassing 65% of the river corridor would continue to require that residential lots outside of hamlets be a minimum of 2 acres in size. This would help maintain an overall low density development pattern, which would minimize the incidence and impacts of failure of septic systems due to construction on unsuitable soils. Residential development can have minor short term effects on surface water quality from soil erosion occurring during construction.

In the remaining 35% of the corridor, scattered, localized surface water quality impacts would occur from increased densities of development and/or a lack of adequate erosion control measures. Such impacts are expected to be minor because of the projected low levels of development activity and because negative effects from existing residential structures have not been observed. In addition, most towns require soil percolation tests for new residential developments using septic systems.

Impacts from Incompatible Uses

Under this alternative, it is estimated that between 50-70% of the river corridor would continue to be covered by zoning ordinances precluding major incompatible uses which could have potentially significant effects on water quality. Such uses would include heavy industrial uses, junkyards, and landfills.

There are no known proposals for these uses in the remaining 30% -50% of the corridor not covered by local regulations. However, there is a possibility these uses could occur due to the lack of local regulation. Should these major incompatible uses occur, minor to moderate impacts on water quality would be expected.

Conclusion:

Local zoning ordinances would help maintain the surface water quality of the river corridor. Minor temporary localized effects may occur in certain tributary watersheds from soil erosion and sediment loading during residential construction. Minor increases in nutrients and fecal bacteria may occur in tributaries from increased construction of on-lot septic systems. Minor to moderate impacts from major incompatible uses would be expected. Negligible impacts from recreation use would occur.

B. Impacts to Groundwater Quality

Impacts from New Residential Development

The fact that the majority of homes in the river corridor rely on individual septic systems, and that the majority of soils in the corridor are unsuitable for septic system disposal, indicates that there is potential for impacts to groundwater quality. DRBC data indicate that groundwater quality is good (see Table III.3). This may be due to the low density pattern of development in the river corridor, and the seasonal use of many homes. It is estimated that under this alternative about 65% of the river corridor would continue to be covered by zoning ordinances with a provision for a 2 acre minimum lot size. This would help maintain the present low density development pattern. Combined with the requirements for soil percolation tests for new development, this would help ensure that new development would have negligible impacts on groundwater.

In the remaining 35% of the corridor, scattered, localized ground water quality impacts would occur from increased densities of development. Such impacts are expected to be minor because of the projected low levels of development activity and because negative effects from existing residential structures have not been observed. In addition, most towns require soil percolation tests for new residential developments using septic systems.

Impacts from Incompatible Uses

As described above, development of incompatible uses such as landfills or industrial storage sites in the river corridor would likely have the greatest potential impact on groundwater. As in the case of surface water, it is estimated that between 50-70% of the river corridor would be covered by zoning ordinances precluding incompatible uses which could have potentially significant effects on water quality. Should these uses occur in areas without local regulations covering these uses, a minor to moderate impact to groundwater quality is expected.

Conclusion

Application of local zoning ordinances prohibiting incompatible uses and specifying minimum lot sizes would help maintain the existing high quality of groundwater in approximately two-thirds of the river corridor. Negligible impacts from new residential development and minor to moderate impacts from incompatible uses are expected.

3. Impacts on Scenic Resources

Impacts on Scenic Quality of Riverbanks

Based on development trends and patterns it is estimated that there will be 20-30 new structures built within 100 feet of the river high water mark. Under this alternative, five of the 15 towns would continue to require a 100 foot set back for structures from the high mean water line, eight of the towns would limit lot coverage and building heights, and nine towns would continue to limit density to a maximum of one unit per two acres. Together, these measures would provide protection for scenic riverbank resources in those towns.

Along the remaining riverfront, some new development would occur. Here, new structures would be built, estimated at between 10 and 15 units, but without requirements which would minimize adverse scenic impacts. This new construction would have minor localized impacts on the scenic quality of the area in which they would be located.

Environmental Consequences

Impacts on Scenic Quality of Steep Slopes

Based on existing development trends, it is estimated that 100-120 new structures would be built on steep slopes throughout the corridor. Under this alternative, five of the 15 towns (encompassing about 35% of the corridor) would continue to require conditional use review and/or a professional engineer's plan for development of slopes of 15% or greater, and eight towns would continue to limit building height to 35 feet. These measures would minimize visual impacts of new construction on steep slopes in those towns. On the remaining steeply sloped areas, approximately 65% of the total, 65-80 new structures would likely be built but without measures to minimize adverse scenic impacts. The result would be minor to moderate adverse visual impacts throughout the corridor.

Impacts on Scenic Quality of Ridgelines

Based on development trends, it is estimated that approximately 20 new units would be built on ridgelines. Under this alternative, three of the 15 towns would continue to require that no buildings be located along the ridgeline or where they would create a silhouette effect, and eight of the towns would continue to limit building height to 35 feet and to limit lot coverage. Ridgeline development affecting scenic values would be minimized in these areas.

In remaining portions of the corridor, some new development, estimated at about 15 units, would occur on ridgelines with resultant minor scenic impacts because of the relatively few number of new structures over the 73-mile length of the corridor.

Environmental Consequences

Impacts on Scenic Quality from Incompatible Use

There are no known proposed major incompatible uses within the corridor. Approximately 65% of the towns would continue to limit land and water development for various major land uses identified as incompatible and which could impact scenic resources. In the remaining 35% of the corridor, incompatible uses would result in minor to moderate impacts on scenic resources.

Conclusion

Over the next twenty years adverse visual impacts will occur in the Upper Delaware valley resulting from new developments in scenic, sensitive areas out of character with existing patterns of land uses and landscape qualities. In approximately half of the corridor, new structures, estimated at between 70 and 90 in number, will be constructed at such a way as to be visually obtrusive. Overall, there will be a minor loss of scenic qualities within the river corridor; impacts will be moderately adverse in localized areas.

4. Impacts on Recreation

As in Alternative 1, no immediate actions would be taken to limit recreational use on the river. However, the recreation use study underway will provide information for making these management decision in the future. Without an Upper Delaware Council, these decisions would be made exclusively by the National Park Service. In addition, no new public facilities would be developed to accommodate existing or future use.

A. Impacts on Recreation Opportunities

The existing public canoe accesses and campground facilities would accommodate projected use as the analysis in Alternative 1 indicates. In the unlikely event that recreational use posed a threat to public safety or health in the future, measures to limit use, such as permits, would be put into effect by the National Park Service.

No additional public river rest areas would be developed. This would result in an insufficient number of rest areas, comfort stations, and trash containers. The problems would be particularly noticeable south of Callicoon, in the more heavily used section of the river.

The private sector would be expected to provide any needed new facilities for canoe rentals and camping. Market forces and local government regulation would determine the number and location of these facilities. Based on the analysis conducted in Alternative 1, the private sector would be able to accommodate the increased canoeing and camping use which is projected for 2005, public fishing access would be inadequate below Narrowsburg as noted in Alternative 1.

B. Impacts to Quality of Experience

Scenery is a major characteristic which river users enjoy. Impacts of the no action alternative on scenic resources were assessed in Section 3 of this Chapter. In addition, the quality of the user experience would be diminished due to the lack of river rest areas.

Information and education programs would continue at present levels. While it is expected that additional efforts would be made to educate users, in the absence of a visitor contact facility, and a coordinated information and sign program, only a small increase could be expected in visitor contacts. Information and directional needs would continue to be of concern to visitors.

C. Impacts on Visitor Management

Efforts to curb littering and trespassing would rely primarily on voluntary clean-up programs, existing patrols, and present communication systems. No new public facilities or support facilities such as trash cans or restrooms would be added. Patrols would be maintained at existing levels.

While some small reduction of litter and trespass problems would be expected through existing efforts, problems would continue due to expected shortages of public facilities and the increased number of visitors.

Conclusion

Existing public and private canoe access sites and campgrounds would be able to meet current and projected visitor use needs. No new sites are proposed. The number of fishing access sites is inadequate below Narrowsburg and the number of river rest stops is inadequate below Callicoon. Current problems associated with the lack of adequate public access sites and river rest stops would continue, including litter, trespass and visitor safety concerns.

The quality of the recreation experience would be expected to diminish due to some loss of scenic resources and a lack of adequate information on river programs. Landowners could expect litter and trespass problems to continue or increase.

5. Impacts on Cultural Resources

A. Impacts on Archeological Resources

Impacts of NPS facility development

Any facility development by NPS under this alternative would be minimal, consisting only of improvements to the NPS headquarters in Damascus and development of parking areas at the Delaware Aqueduct (Roebing Bridge). As under Alternative 1, NPS procedures for archeological clearances and mitigation would apply to any such facilities.

Environmental Consequences

Impacts of NPS management and interpretation

The archeological site at the Ten Mile River, proposed for acquisition in the RMP, would not be acquired under this alternative, and would thus not be assured of protection and interpretation. NPS and the State Historic Preservation Offices of New York and Pennsylvania would continue to assist private landowners with nominations to the National Register of Historic Places if requested to do so, but NPS would not initiate any public education or interpretation programs.

Impacts from recreational use

Recreational use of the river corridor can adversely affect archeological resources through vandalism or unmanaged visitor use. River patrols would be continued at their present level, so that the level of protection afforded archeological resource sites from the impacts of recreational use would not be increased. Some minor impacts to archeological resources could occur.

Impacts from new development

Impacts of increased residential and commercial development in sensitive archeological areas on floodplain terraces would potentially be more severe than under the proposed action. Nine towns would continue to impose a minimum lot size of one unit per two acres, covering about 65% of the river corridor. Local river protection zones with setback requirements in 5 towns (about 35% of the river corridor), and floodplain protection ordinances in at least 9 towns (about 65% of the corridor) would also help limit construction of large numbers of new dwelling units in floodplain terrace areas. Even low density development, however, can still affect archeological sites. Since knowledge of archeological sites is still incomplete, it is impossible to predict how many sites could be disturbed, but it is expected that some losses would occur due to new construction.

Other land uses that could adversely impact archeological resources are those identified in the proposed plan and Land Use Guidelines as "incompatible uses," a category which includes uses such as major transmission lines, major highways, junkyards and other large-scale uses. Under this alternative, it is assumed that approximately 10 of the 15 Upper Delaware municipalities (occupying about 35% of the corridor) would continue to regulate the majority of such incompatible uses. Since such land uses generally involve extensive ground disturbance, they have great potential for disrupting archeological sites. However, the probability of this type of large-scale construction is far less than the probability of continued residential development in the river corridor. Furthermore, if state or federal funds were involved in any large-scale construction project, potential impacts to cultural resources would be evaluated as part of the required environmental review processes.

Conclusion

Continued residential development in archeologically sensitive areas, and the increased probability of incompatible land uses, would likely have a negative impact on archeological resources through ground disturbance during construction.

B. Impacts on Historic Resources

Impacts of NPS facility development

Any facility development by NPS under this alternative would be minimal, consisting only of improvements to the NPS headquarters in Damascus and development of parking areas at the Roebling Bridge. As under Alternative 1, NPS procedures for archeological clearances and mitigation would apply to any such facilities.

Impacts of NPS management and interpretation activities

Under this alternative NPS would continue to manage and interpret only those historic resource sites that are currently under NPS management. Restoration and re-opening of the Roebling Bridge to light vehicular traffic would be completed as planned, and NPS would continue to lease space in the Old Arlington Hotel and the Zane Grey House. NPS and the State Historic Preservation Offices of New York and Pennsylvania would continue to assist private landowners with nominations to the National Register of Historic Places if requested to do so, but NPS would not initiate any public education or interpretation programs.

The protection and interpretation of cultural resources through state and local programs would continue, but without coordination by an mental body. The technical services of the State Historic Preservation Offices of Pennsylvania and New York would continue to be made available.

Impacts from Recreational Use

Recreational use of the river corridor can adversely affect both existing historic sites and the remains of historic resources through vandalism or nonmanagement of use. River patrols would be continued at their present level and the level of protection afforded historic sites would not be increased. Continued enforcement by local police and constables of ordinances against littering and trespass could lessen the disturbance to resources on private lands.

Impacts from new development

Increased development, both residential and commercial, has the potential to significantly alter, damage or destroy surface or subsurface remains of historic resources. Moreover, private owners of historic properties are free to remove or alter such structures as they wish.

Environmental Consequences

Impacts from incompatible uses

Most potential incompatible uses identified in the RMP would involve major ground disturbances that could disturb subsurface remains of historic sites. Under this alternative, it is assumed that approximately 10 of the 15 Upper Delaware municipalities (occupying about 65% of the corridor) would continue to regulate the majority of such incompatible uses. Such land uses, which generally involve extensive ground disturbance, can disrupt both existing historic buildings and the remains of historic sites.

However, the probability of this type of large-scale construction is far less than the probability of continued residential development in the river corridor. Furthermore, if state or federal funds were involved in any large-scale construction project, potential impacts to cultural resources would be evaluated as part of the required environmental review processes.

Conclusion

NPS assistance to landowners, assistance from state agencies, and local resource protection efforts would continue to foster public awareness of historical and archeological resource values. In the absence of increased NPS management and interpretation programs, and given continued new residential development and possible incompatible uses in the corridor, it is likely that a limited number of historic sites and buildings would be altered or destroyed.

6. Economic Impacts

A. Impacts on Land Values

Because no major modification to local land use regulations are expected, land values would not be affected.

Conclusion

No impacts on the land market would result.

B. Impacts on Municipal Finances

Under this alternative, it is projected that the National Park Service would not acquire any additional land. As a result, there would be no impact on municipal finances due to property tax loss.

As described in Chapter II.B.2 of this EIS, Alternative 2 assumes that over the course of the planning period no major modifications to local land use regulations would occur. As a result, local government costs for developing and implementing land use regulations would not be affected.

As described in Chapter II.B.2 of this EIS, Alternative 2 assumes that over the course of the planning period no major modifications to local land use regulations would occur. As a result, local government costs for developing and implementing land use regulations would not be affected.

As noted under Alternative 1, the EIS team has made the assumption that levels of visitation to the Upper Delaware, as well as levels of permanent and second-home development, will not vary significantly under any of the alternatives. The level of municipal expenditures likely to result from projected visitation and development trends is set out in Table III.17.

Conclusion

No impacts on municipal finances would result, since there would be no potential for property tax loss due to acquisition and there would be no costs for land use regulation modifications to conform to the Land Use Guidelines and RMP.

7. Impacts on the Bald Eagle

This analysis is based on existing local land use regulations in the southern corridor Towns of Lumberland and Deerpark, New York, and Westfall, Pennsylvania. (Refer to pages 164 and 165 for information on this area and bald eagle habitat.)

Under this alternative these towns have zoning regulations which require new developments, outside of hamlets, to be built in ways which help to minimize impacts to bald eagles. These include two-acre lot size, setbacks from the river, limitations on lot coverage, and limitations on clear-cutting. Major incompatible land uses are also precluded by current zoning regulations.

No new recreation facilities are proposed under this alternative.

No Upper Delaware Council would be formed under this alternative. The project review function of the Council (RMP and Alternative 1) or National Park Service (Alternative 3) would not occur and no formal mechanism for coordination with state wildlife management agencies would exist.

Conclusion

With the measures under this alternative, it is anticipated that the existing habitat of the area would be protected and the existing level of use of the area by the bald eagle would be maintained. However, under this alternative, the project review function of the Council and/or National Park Service would not occur and incompatible land uses would not be precluded, as a last resort, by the authorities in Section 704(e)(4) of Public Law 95-625. This lack of a coordination and review mechanism, and of the authorities in Section 704 increases the possibility, although slight, of adverse impacts in future years to the bald eagle population.

E. Alternative 3: Implement Modified River Management Plan

1. Impacts on the Sport fishery

Within the past 15 years, 654 new structures have been built in the river corridor. Based on the present excellent water quality readings and the opinions of fisheries biologists in New York and Pennsylvania, present levels of residential and commercial development have had negligible impacts on shad. Impacts are described in relative terms as described in Chapter IV C.1. The number of residential structures within the Upper Delaware River corridor is projected to increase by approximately 25% during the next 20 years, an increase of about 625 housing units.

It is estimated the local land use provisions regulating new construction on steep slopes in conformance with the Land Use Guidelines would be in effect in about 75% of the river corridor. Similarly, zoning provisions controlling new construction within 100 feet of the river, in conformance with the Guidelines, would cover about 75% of the corridor. The regulations would help to prevent erosion and reduce the likelihood of sedimentation in reaching important habitat and spawning areas. Although scattered erosion problems associated with new construction could be expected in the remaining 25% of the corridor it is unlikely that sediment loads would increase to the point of impacting shad spawning and nursery areas in the main stem. A negligible impact from projected new development on shad spawning habitat would occur.

Incompatible uses listed in the proposed Land and Water Use Guidelines can have adverse effects on shad fisheries. Specific land uses with potentially deleterious effects on the fisheries of the Upper Delaware include impoundments, channel modifications and power plants which could impede the shad migrations, and landfills, major mining operations, and heavy industrial uses which could adversely impact water quality. Section 7 of the National Wild and Scenic Rivers Act precludes federally licensed

or funded water resource projects (including impoundments and channel modification projects) which would alter the free-flowing characteristics of the Upper Delaware. It is estimated that new major mining operations and heavy industrial uses would be precluded by local land use ordinances in approximately 80% of the river corridor.

There are no known proposed major incompatible uses (see table II.3) in the remaining 20% of the corridor. Because of relatively low population growth, little new development, distance from major urban markets, and the limited availability of suitable sites in the corridor, it is unlikely that new major incompatible uses would occur. In the event that major incompatible uses were proposed in towns not in conformance with the guidelines, they would be blocked through federal acquisition. Negligible impacts from new incompatible uses in the corridor on shad spawning habitats are expected.

Some disturbance to the shad habitat in the form of sedimentation may occur during construction of the three proposed river rest stops and the four fishing access sites. This could be mitigated by using construction practices that would minimize sedimentation or scheduling construction so that it does not interfere with the shad migration. Some very localized temporary disturbance to shad habitat may occur from use at the access sites in the form of boat launching or wading. Overall, there would be a negligible impact on shad spawning habitats from recreational facility development and use.

Conclusion

The overall quality of Upper Delaware shad fishery would be maintained through the requirements of Section 7 of the Wild and Scenic Rivers Act and through local zoning consistent with the Land and Water Use Guidelines.

Negligible impacts from erosion and sediment due to new development, recreational facility development and use and major incompatible uses would occur.

B. Impacts to Trout

The number of residential structures within the Upper Delaware River corridor is projected to increase by approximately 150 units during the next 20 years along the trout habitat and spawning areas north of Callicoon (25 miles). Under this alternative, it is estimated that zoning in conformance with the guidelines would occur in about 50% of the corridor north of Callicoon. The regulations would help to prevent erosion and sedimentation as a result of construction activities from impacting important trout habitat and spawning areas. In the remaining 50% of the northern corridor, some development could occur which would cause scattered erosion and possible sedimentation problems in the tributaries. As a result, a minor impact to trout spawning and nursery habitat would result.

Major incompatible uses listed in the proposed Land and Water Use Guidelines (see Table II.3) can have adverse effects on trout habitat and spawning areas. Specific land uses with potentially deleterious effects on the fisheries of the Upper Delaware include impoundments, channel modifications, power plants, landfills, major mining operations, and heavy industrial uses. Section 7 of the National Wild and Scenic Rivers Act would preclude federally licensed water resource projects (including impoundments and channel modification projects) which would alter the free-flowing characteristics of the Upper Delaware.

New major incompatible uses such as mining operations and heavy industrial uses would likely be precluded by local land use ordinances in approximately 50% of the river corridor north of Callicoon.

There are no known proposed major incompatible uses (see Table II.3) in the remaining 50% of the northern corridor. Because of relatively low population growth, little new development, distance from major urban markets, and the limited availability of suitable sites in the corridor, it is unlikely that new major incompatible uses would occur. In the event that major incompatible uses were proposed in towns not in conformance with the guidelines, they would be blocked through land acquisition. No impacts from new major incompatible uses in the corridor on trout spawning habitats are expected.

Negligible impact on trout spawning habitat from the development of the proposed 3 river stops and 4 fishing access sites is expected because these are located on the main stem below Callicoon. Impacts from recreation use on trout spawning habitats are not expected based on projected use levels and patterns.

Conclusion

The overall quality of Upper Delaware trout fisheries would be maintained through the requirements of Section 7 of the Wild and Scenic Rivers Act and through local zoning consistent with the Land and Water Use Guidelines. Minor impacts to trout spawning and nursery habitat on a few tributary streams may occur from residential construction activities. Negligible impacts from major incompatible uses and recreational facility development and use are expected.

C. Impacts to Bass

Land use activities that cause soil erosion and the resultant siltation of important habitat and spawning areas which occur primarily in tributaries can adversely affect the bass population. Increased rates of soil erosion can result from vegetative clearing and construction activities on steep slopes and on riverbanks and ridgelines. Large sediment loads carried by

stormwater runoff can cause siltation of bass spawning and nursery habitat. Based on the present excellent water quality readings and the opinions of fisheries biologists in New York and Pennsylvania, present levels of residential and commercial development have had minimal impacts on bass. The number of residential structures within the Upper Delaware River corridor is projected to increase by approximately 475 units during the next 20 years along the primary bass habitat and spawning areas located below Callicoon.

It is estimated that local land use provisions regulating new construction on steep slopes in conformance with the Land Use Guidelines would occur in about 85% of the river corridor below Callicoon. Similarly, zoning provisions controlling new construction within 100 feet of the river, in conformance with the Guidelines, would cover about 85% of that portion of the corridor below Callicoon. These regulations would help to prevent erosion and sedimentation as a result of construction from impacting important bass habitat and spawning areas. Scattered erosion problems associated with new construction could be expected in the remaining 15% of the corridor. As a result, minor impacts to bass spawning habitat might occur on a small number of the lower reaches of tributary streams below Callicoon.

Major incompatible uses listed in the proposed Land and Water Use Guidelines can have adverse effects on bass habitat and spawning areas. Specific land uses with potentially deleterious effects on the fisheries of the Upper Delaware include impoundments, channel modifications, power plants, landfills, major mining operations, and heavy industrial uses. Section 7 of the National Wild and Scenic Rivers Act would preclude federally licensed water resource projects (including impoundments and channel modification projects) which would alter the free-flowing characteristics of the Upper Delaware. New major incompatible uses such as mining operations and heavy industrial uses would likely be precluded by

local land use ordinances in over 95% of the river corridor south of Callicoon. Proposed major incompatible uses (such as major mining or heavy industry) in towns not in conformance with the Guidelines could be blocked through land acquisition. Negligible impact from incompatible uses to bass spawning areas and habitat are expected due to the unlikely occurrence of incompatible uses.

Proposed recreation facilities are located near the main stem of the river with the one exception of a site proposed at the confluence of a tributary stream and the Delaware. Some disturbance to bass habitat in the form of sedimentation may occur during development of a river rest stop. This could be mitigated by using construction practices that would minimize sedimentation or scheduling construction so that it does not interfere with bass spawning. Some very localized temporary disturbance to bass habitat may occur from recreation use. A negligible impact from recreational facility development and use is expected.

Conclusion

The overall quality of Upper Delaware bass fisheries would be maintained through the requirements of Section 7 of the Wild and Scenic Rivers Act and through local zoning consistent with the Land and Water Use Guidelines. Minor impacts to bass spawning areas and habitats on a few tributary streams may occur from residential construction activities. Negligible impacts from incompatible uses and recreational facility development and use would occur.

2. Impacts on Water Quality

A. Impacts on Surface Water Quality

Under this alternative, it is estimated that towns encompassing 75% of the river corridor would adopt local zoning provisions in conformance with the Land Use Guidelines' standard that residential lots outside of hamlets be a minimum of 2 acres in size. This would serve to encourage an overall low

density development pattern, which would minimize the incidence and impacts of failure of septic systems due to construction on unsuitable soils.

Residential development can have minor short term effects on surface water quality from soil erosion occurring during construction. Measures contained in the Land Use Guidelines to minimize soil erosion were described under Section C.1 ("Impacts on Fisheries").

Impacts from Incompatible Uses

Under this alternative, it is estimated that about 75% of the river corridor would be covered by zoning ordinances precluding major incompatible uses which could have potentially significant effects on water quality. There are no known proposals for heavy industrial uses, junkyards, or landfills in the corridor. In the unlikely event that these major incompatible uses are proposed in towns not in conformance with the Guidelines, they would be blocked through NPS land acquisition. Negligible impacts from incompatible uses are expected.

Impacts from Recreational Facilities Development and Use

Limited short term soil erosion and siltation may occur from construction of new public recreational facilities at selected locations along the Upper Delaware. Under this alternative, three river rest areas, four fishing access sites, two bridge parking areas, and a visitor contact facility would be developed. In addition, the existing NPS headquarters complex would be completed, and two permanent ranger stations would be established. Preparation of professional engineering plans by NPS, and site plan review by local governments, would limit the amount of site disturbance during construction and minimize effects on water quality. Existing data indicates that adverse impacts to surface water quality resulting from recreation use are negligible. It is unlikely that projected use levels would cause a significant difference in water quality levels.

Conclusion

Application of the provisions in the Land Use Guidelines through local zoning ordinances would help to maintain the high water quality of the river corridor. Minor temporary localized effects may occur in certain tributary watersheds from soil erosion and sediment loading during residential construction. Minor increases in nutrients and fecal bacteria may occur in tributaries from increased construction of on-lot septic systems. Negligible impacts from incompatible uses and recreational facility development and use are expected.

B. Impacts to Ground Water Quality

Impacts from New Residential Development

The fact that the majority of homes in the river corridor rely on individual septic systems, and that the majority of soils in the corridor are unsuitable for septic system disposal, indicates that there is potential for impacts to groundwater quality. However, DRBC data indicate that groundwater quality is good (see Table III.3). This may be due to the low density pattern of development in the river corridor, and the seasonal use of many homes. It is estimated that under this alternative about 75% of the river corridor would be covered by zoning ordinances in conformance with the Land Use Guidelines, which call for a 2 acre minimum lot size. This would help maintain the present low density development pattern. Combined with the state requirements for soil percolation tests for new development, this would help ensure that new development would have negligible impacts on groundwater.

Impacts from Incompatible Uses

As described above, development of major incompatible uses such as landfills or industrial sites in the river corridor would likely have the greatest potential impact on groundwater. As in the case of surface water, it is estimated that about 75% of the river corridor would be covered by zoning ordinances precluding incompatible uses which could have potentially

Environmental Consequences

significant effects on water quality. There are no known proposals for major incompatible uses in the corridor. In the unlikely event that these major incompatible uses are proposed in towns not in conformance with the Guidelines, they would be blocked through land acquisition. Negligible impacts from incompatible uses are expected.

Impacts From Recreational Facilities Development and Use

Development of 3 river rest areas, 4 fishing access sites, 2 ranger stations and a visitor contact facility would have no impact on groundwater. All construction plans would include development of properly sited and designed septic disposal facilities or portable systems, and thus would likely not impact groundwater quality.

Conclusion

Application of provisions in the Land Use Guidelines prohibiting incompatible uses and specifying minimum lot sizes would help to maintain the existing quality of groundwater in the river corridor.

3. Impacts on Scenic Resources

Introduction

Under the modified plan alternative, it is assumed that 10 of the 15 towns would adopt land use ordinances in conformance with the proposed Land Use Guidelines. The impacts of this action are thus quite similar to those of the proposed action, although a somewhat smaller land area -- about 75% of the corridor as compared to 85% -- would be protected from high density new development and incompatible land uses through local ordinances.

Impacts on Scenic Quality of Riverbanks

Based on development trends and patterns, it is estimated that there will be 20-30 instances of new structures being built within a 100 foot set back of the river, along with three river rest stops and four fishing access sites. Under this alternative, it is assumed that 10 of the 15 towns would adopt measures regulating new developments within the 100 foot set back from the mean high water line, placing height restrictions on new structures and limiting maximum lot coverage. These measures would minimize the impacts of new development along approximately 110 river miles (out of 147). It is expected that in these areas visual impacts from new structures and facilities would be negligible.

In the remaining 37 miles of riverbank, some new development would occur but without measures to minimize adverse scenic impacts. While few in number, 7-10, these new structures would have minor impacts to scenic qualities in the immediate area.

Impacts on Scenic Quality of Steep Slopes

Based on development trends and patterns, it is estimated that 100-120 structures would be built on areas of steep slopes encompassing about 27,000 acres. Under this alternative it is assumed that 10 of 15 towns with 20,000 acres of steeply sloped lands (out of the 27,000 total) would adopt zoning measures requiring conditional use review and/or a professional engineer's plans on steeply sloped land, building height limitations, and maximum lot size. These measures would minimize adverse scenic impacts in the ten towns.

In the remaining towns, with 7,000 acres of lands exceeding 15% slope, new structures would be built, at between 25 and 30, without the provisions of the guidelines and plan with respect to conditional use review, height limitations, and maximum lot coverage. In these areas minor adverse impacts would occur to the existing character of the areas in which they are located.

Impacts on Scenic Quality of Ridgelines

Based on development patterns, it is estimated that about 20 structures will be built on ridgelines throughout the corridor. It is assumed that 10 of the 15 towns would likely adopt zoning ordinances requiring that no buildings are located so close to the ridgeline as to exceed the height of the trees when viewed from the river, or requiring other height limitations, and maximum lot coverage. In these ten towns, the visual impacts of new structures on the ridgelines would be negligible.

In the remaining five towns, an estimated 6 to 8 new structures will be built on ridgelines. Minor localized impacts might occur.

Impacts on Scenic Quality from Incompatible Uses

There are no known proposed major incompatible uses (see Table II.3) within the corridor. In the event that major incompatible uses were proposed in towns not in conformance with the guidelines, they would be blocked through federal acquisition. Negligible impacts from new incompatible uses on scenic quality is expected.

Conclusion

The Upper Delaware valley landscape in 20 years will be similar to existing patterns, types and conditions. Some limited development (140-170 structures) would occur in sensitive scenic areas, including the riverfront ridgelines, and steep slopes throughout the river corridor.

In 75% of the corridor, town regulations would serve to minimize and mitigate adverse impacts to scenic, sensitive areas by the conditional use review of new development and by other measures such as minimum lot size, setback requirements, and maximum lot coverage. Cumulatively, the effect of the town ordinances would be to protect scenic values throughout much of the corridor. In the remaining 25 percent of the corridor, minor impact to scenic values would occur in localized areas. Incompatible uses, which have the greatest potential for adverse scenic impacts, would be avoided throughout the entire corridor, either by local ordinances or actions of other levels of government.,

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4. Impacts on Recreation

Opportunities and Visitor Management

Because the same level of facility development is proposed, the impacts on recreation opportunities and visitor management under this alternative will be the same as those under Alternative 1.

Impacts to Quality of Experience

There is a slight difference in the percentage of the corridor in which scenic resources would be conserved, but not enough to make an appreciable difference in the quality of the recreation experience. A decrease in litter and trespass would also be expected.

A major difference will be the lack of an Upper Delaware Council to coordinate and be responsible for achieving the Water Use Program. The National Park Service will assume the function of the Upper Delaware Council as outlined in the proposed River Management Plan.

Conclusion

The proposed public facilities will adequately meet present and future needs for public canoeing and fishing access. The existing campgrounds provided by the private sector will meet present and future camping needs.

The quality of the recreation experience will be maintained or enhanced under this alternative and a decrease in littering and trespass is expected.

5. Impacts on Cultural Resources

A. Impacts on Archeological Resources

Impacts of NPS facility development

The impacts of this alternative would be identical to those of the proposed plan. NPS facility development would be the same as under the proposed plan, and the same procedures for archeological mitigation measures would apply.

Impacts of NPS management and interpretation

A major archeological site at Ten Mile River would be acquired under this alternative, as under the proposed plan. The same impacts would occur as under the proposed plan.

Impacts from new development

Residential development on floodplain terraces would be expected to continue to occur, as described under Alternative 1. NPS would have the authority to acquire significant threatened archeological or historic resource sites within towns not in conformance with the RMP and the Guidelines.

Impacts from incompatible uses

Most potential major incompatible uses would involve major ground disturbances that could disturb archeological sites. Under this alternative it is estimated that 10 of the 15 Upper Delaware towns, encompassing about 75% of the corridor, would be expected to enact local ordinances prohibiting these major incompatible uses. As previously described, there are no known proposed incompatible uses.

Under this alternative NPS would acquire land to avert clear and direct threats to archeological resources within towns found not to be in conformance with the proposed RMP or the Land Use Guidelines.

Conclusion

The prohibition of incompatible uses in about 75% of the corridor, and potential NPS land acquisition, would remove a potential source of major threats to archeological resources. There would be positive effects on archeological resources from management and interpretation of the Ten Mile River site, and from public education and interpretation programs.

B. Impacts on Historical Resources

Impacts of NPS management and interpretation

As with archeological resources, the impacts of this alternative are the same to those of the proposed plan. NPS management actions would be the same as those described under Alternative 1, Chapter II. Specifically, D & H Canal Locks 54 and 72, and the Zane Grey House, would be acquired and NPS would continue to manage the Roebling Bridge and lease space in the Arlington Hotel, while pursuing cooperative agreements for the interpretation or protection of other sites as outlined in the proposed plan.

Impacts from new development

As is the case under the proposed plan, private property owners are free to alter or remove historic buildings or structures as they see fit. NPS could acquire significant historic sites that were threatened by incompatible development. Such sites would be either managed by NPS or protected by facade and conservation easements and resold. The protection and interpretation of cultural resources through state and local programs would continue, but with coordination by NPS rather than the Upper Delaware Council.

Impacts from major incompatible uses

It is estimated that incompatible land use which could damage or destroy historic buildings, structures or sites would be prohibited by local zoning ordinances in 10 of 15 towns, or about 75% of the corridor. NPS could acquire land to avert major threats to such sites in towns found not to be in conformance with the proposed RMP or the Land Use Guidelines.

Conclusion

NPS management actions would help to ensure the protection and restoration of historical resources in the corridor. Historic resources would be protected against clear and direct threats through local zoning ordinances or through land acquisition by NPS, however, minor losses to historic resources would occur.

6. Economic Impacts

A. Impacts on Land Values

Impacts on land values would be similar to those described under Alternative 1.

Conclusion

As under Alternative 1, land prices would continue to increase in the river corridor.

B. Impacts on Municipal Finances

As under Alternative 1 there would be two principal impacts on municipal finances: (1) property tax loss due to government land acquisition, and (2) costs associated with developing and administering local land use regulations necessary to conform to the land use guidelines. With regard to land acquisition, the National Park Service would acquire approximately 124 acres of land for construction of facilities and access points. The effects of 124 acres of acquisition on municipal finances will be negligible

and would be covered, at least in part, by the federal in-lieu taxes program, 31 U.S.C. 6904.

In towns not in conformance with the Plan and Guidelines, estimated to be 5 under this alternative, clear and direct threats to land resources would be dealt with through land acquisition, to a maximum of 7,340 acres.

However, it is highly improbable that this total will ever be approached. Should any land acquisition occur, lands so acquired would be resold with restrictive covenants in the deed to preclude any future recurrence of the threat. This resale provision returns the lands to private ownership and the tax base of the local municipality. Hence, there would be only a negligible impact to the town's total tax base during the period the acquired property is being resold.

A second potential cost to local governments would result from implementing local and land use regulations in conformance with the Land Use Guidelines. Munley and Aronson's study concluded that the annual cost to a town of implementing zoning in conformance with the plan and guidelines would range from \$1,500 to 3,500. In terms of the percentage of a town's overall expenditures that this would likely present, Munley and Aronson concluded that it would range from less than 1% (0.27%) of a town's total expenditures (for Deerpark) to 3.7% (for Buckingham). Not all of the zoning costs for all towns would be directly attributable to adoption of the river management plan, since eleven of the towns already have some form of zoning resolutions (six of them having had zoning codes prior to 1980).

An associated one-time cost would be for initially developing or revising land use regulations to conform to the plan and guidelines. The National Park Service, along with state and county planning offices, would provide both financial and technical assistance to the towns to cover most, if not all, of these costs.

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Levels of recreation visitation to the Upper Delaware, as well as levels of permanent and second-home development, will not vary as a result of the modified river management plan. As a result, the level of municipal expenditures that would result from these activities, projected over a ten year period, as set out in Table III.17 of this EIS, is not expected to differ under Alternative 1.

Conclusion

Cost to municipal governments as a result of property tax loss due to federal land acquisition would be minimal or less than 1% affecting, at most, 0.87% of any one town's property tax base, and 0.5% of any one school district's tax base. Impacts on municipal finances due to costs associated with developing and implementing local land use regulations would also be minimal.

Impacts on the Bald Eagle

For this analysis, it is assumed that the three southern corridor towns' zoning regulations are consistent with the plan and guidelines (refer to pages 164 and 165 for information on this area and bald eagle habitat). These regulations include measures which serve to minimize impacts to the bald eagle, including two-acre minimum lot size, 100-foot setback from the river, or conditional use review within that area, maximum lot coverage and limitations on clear-cutting. Incompatible land uses would also be precluded by town regulations and/or the authorities in Section 704 (e)(c). The project review function of the Council would be assumed by the National

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Park Service. The Service would coordinate this review with wildlife management agencies and would seek to assure that all existing authorities are used to minimize adverse impacts to the bald eagle.

Conclusion

Impacts to the bald eagle are identical to those under Alternative 1. With these measures at the local, state, and federal levels, it is anticipated that the existing habitat of the area would be protected and the existing level of use of the area by the bald eagle would be maintained.

F. Irretrievable Commitments of Resources and Unavoidable Adverse Effects

1. Alternative 1, Proposed Action

Acquisition of approximately 124 acres would cause the conversion of this land from private to public ownership; and the development of new NPS facilities would cause the conversion of approximately 20 acres of this undeveloped land to intensive uses. Neither action represents an irretrievable commitment of resources.

Adverse impacts of existing trends in recreational use would consist primarily of localized noise and degradation of air quality from increased traffic.

No severe long term adverse effects are expected to result from adoption of the proposed action and the following impacts would occur under all three alternatives. Construction of new residential development would have minor adverse short term effects on certain tributary watersheds, resulting from localized soil erosion and sediment loading. Erosion and accompanying sedimentation problems would be increased in those areas without restrictions on development on steep slopes and erodible soils. These unavoidable effects would be experienced in roughly 15% of the corridor. New development would also increase non-point source pollution from the malfunctioning of residential septic systems. One consequence would be minor increases in levels of fecal coliform bacteria in localized areas.

Additional loss of archeological sites may result from recreational use and continued residential development in archeologically sensitive areas near the river. Because no complete record of archeological sites exists, the extent and severity of such losses cannot be predicted.

2. Alternative 2, No Action

Under this alternative there would be no further development of NPS facilities, causing no federal conversion of undeveloped land. Other unavoidable effects described for Alternative 1 would be magnified. Unavoidable erosion and sedimentation problems resulting from new residential and commercial development would affect approximately 65% of the river corridor. Major incompatible uses would be unrestricted in about 35% of the corridor, causing localized declines in water quality. Minor to moderate reductions in the productivity of area fisheries may result from slight declines in water quality in tributary streams.

The cumulative consequences of increased construction near the river in about two thirds of the corridor, as well as increased recreational use, would pose threats to archeological resources within the corridor.

3. Alternative 3, Modified RMP

The unavoidable effects of NPS facility development would remain the same as under Alternative 1.

Approximately 20% of the corridor would be unprotected from intensive or inappropriately located residential development or incompatible land uses, resulting in minor erosion, sedimentation and water quality problems. Loss of archeological sites could also result from recreational use facility development and continued residential development.

CHAPTER V - CONSULTATION AND COORDINATION

A. Development of the EIS

This section describes the process used to determine the issues and alternatives which have been analyzed in this Environmental Impact Statement.

1. Scoping

After designation of the Upper Delaware into the Wild and Scenic Rivers System, efforts were begun to develop a River Management Plan (RMP). A draft RMP/EIS was completed in October 1982 and a revised draft River Management Plan was issued in October 1983. Considerable public controversy upon release of the documents led to a request by the Council of Upper Delaware Townships that it be given the opportunity to prepare a draft plan more responsive to local conditions and need. The National Park Service agreed to the request. This draft RMP was prepared by the Conference of Upper Delaware Townships in cooperation with riparian landowners, the State of New York, Sullivan County, NY, the Commonwealth of Pennsylvania, the Delaware River Basin Commission, citizens' groups and the National Park Service (NPS).

As the draft RMP neared completion, the National Park Service began work on the draft EIS. The Notice of Intent announcing the preparation of the draft Environmental Impact Statement was published in the Federal Register July 16, 1985.

Several techniques were used to inform the public about the draft EIS. First, the draft RMP/draft EIS process has received extensive and thorough media coverage. Upper Delaware River area newspapers in particular have frequently reported the ongoing activities of the Council of Upper Delaware Townships, Citizens Advisory Council, and NPS throughout the planning process. Newspaper articles were reviewed for information regarding

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issues. Second, the Citizen's Advisory Council provided an open forum for public comment. Third, NPS directly informed citizens and groups of the preparation of both documents. Comments were solicited through periodic mailings which included background material, status updates, and a summary of the scoping meetings. Contact was established with those people who have been involved with the proposed RMP, and maintained through a mailing list compiled by NPS, which included all those identified in Chapter V, Section B.

In developing the draft EIS a series of meetings were held to involve the public, and federal, state and local agencies in identifying what alternatives and issues should be addressed. These meetings, referred to as scoping meetings, helped NPS decide what would be covered in the EIS.

Six scoping meetings, one for the general public and five involving government agencies, were held in July and early August 1985, to discuss the draft EIS. A summary of these meetings can be found in Appendix A. Questions and comments from the public and agency representatives dealt with issues such as the effectiveness of cooperative responsibilities for managing resources, the economic impacts to the communities, control of water flow, and the definition of the river corridor's boundary. Possible alternatives to the proposed plan were also discussed.

The draft River Management Plan was released for public review in January 1986; the draft EIS was released in April 1986. Four public hearings were held on both draft documents in June 1986.

2. Formulation of Issues

Planning Issues

There are several areas of concern that surfaced during the course of the planning effort.

1. Where should the boundary be located?

Over the years, there has been considerable discussion about the appropriate location of the boundary of the Upper Delaware Scenic and Recreational River. The 1978 legislation included a corridor of 86,000 acres. The enabling legislation provides for modifications to the boundary based on river-related resource criteria. The EIS alternatives include two boundaries, the legislated boundary (Alternative 2) and the revised boundary encompassing 55,574.5 acres (Alternative 1 and 3).

2. What level of recreational use and management is appropriate?

Another area of public concern is the amount and type of recreational use that the river and its corridor can sustain without adversely affecting natural, scenic, and cultural resource values. The amount and type of additional facilities which are needed to manage recreation use must also be identified. A number of recreation related problems such as safety, littering, trespassing, and vandalism were also outlined.

3. How will land use be managed?

Valley residents showed a strong desire to maintain local control of land use decisions, and to safeguard private property rights. There is opposition to federal acquisition, or federal use of eminent domain, and there is concern over the extent to which traditional land uses on private property might be regulated under the proposed plan.

4. How will the region's economy be sustained?

This issue involves balancing the continuation of traditional and commercial land uses with an appropriate level of resource conservation in order to maintain the valley's economic base while meeting the objectives of the Wild and Scenic Rivers Act. There is concern about the effect of the proposed plan on land values, and the costs to local government of implementing the plan. The degree to which existing commercial boating businesses would be influenced under the proposed plan was identified as a concern.

5. Who will be responsible for river management?

There is concern over the way that the responsibility for managing the Upper Delaware River corridor will be shared among local, state and federal agencies and the private sector in order to address the above-mentioned issues, while meeting the objectives of the Wild and Scenic Rivers Act and the enabling legislation.

First, there is a strong concern that the Upper Delaware area should be managed cooperatively by all levels of government, and that local governments retain the primary land management responsibility for the area. Second, there is a widespread concern that the current system of water quality and quantity management and monitoring is inadequate to protect the river's fishery, as well as its water quality.

Environmental Issues

During scoping, a range of environmental and social issues were identified. They included the possible impacts on:

recreational use	timbering
water quality	hydropower
water flow	transportation systems
scenic resources	width of the corridor
natural features	agricultural resources
land uses	acquisition

The EIS study team, based on further discussion with resource experts and review of existing information, also identified additional issues such as possible impacts on the Plan on:

historic resources	landowner concerns
archeological resources	wetlands
threatened or endangered species	mineral resources
floodplains	

Based on additional research, and a review of data, the EIS study team defined the major environmental issues as:

1. **Sport Fisheries**
 - a. Impacts on shad
 - b. Impacts on trout
 - c. Impacts on bass
2. **Water Quality**
 - a. Impacts on surface water quality
 - b. Impacts on groundwater quality
3. **Scenic Resources**
 - a. Impacts on the scenic quality of the area
4. **Recreational Use**
 - a. Impacts on the quality of the recreational experience
 - b. Impacts on recreational opportunities
 - c. Impacts of litter and trespass
5. **Cultural Resources**
 - a. Impacts on historic resources
 - b. Impacts on archeological resources
6. **Economic Impacts**
 - a. Impacts on land values
 - b. Impacts to local governments
7. **Impacts on the Bald Eagle**

All of the issues raised during the scoping process were considered and researched. However, after review, it was decided not to analyze all of these issues. Below are topics which were considered, but not analyzed in detail because of the reasons cited:

1. **Water Flows**

As described in Chapter III/C.6, the river's flow is managed under a United States Supreme Court decree and subsequent agreements. Any actions which affect flow management are beyond the scope of the river management planning effort and therefore, flows are not analyzed as an impact topic. The Plan does not propose any action to change the court decree.

Future projects which affect water flows, such as dams, hydropower development and diversions on or directly affecting the Upper Delaware river, fall under the provisions of Section 7(a) of the National Wild and Scenic Rivers Act. No federally funded, licensed or initiated projects can be developed which would have a direct and adverse impact on river values.

2. Use Levels

Several studies have been conducted regarding recreation use levels on the Upper Delaware during the development of the proposed plan. It was determined that additional data and study were needed prior to determining appropriate use levels. It was decided that a Recreation Use Study would be undertaken by NPS to provide needed information. Because this study is underway, the proposed plan does not recommend optimum use levels or carrying capacity at this time. However, in order to assess recreation needs and demands for the purposes of this EIS, existing data was used to assess the effects of the proposed plan.

3. Timbering

Most of the timbering that goes on in the corridor occurs on private land. The proposed Land Use Guidelines recommend the use of good management practices. Because timbering is considered a traditional use and because the extent to which it occurs or will occur is likely to be small, the impacts on timbering and its resultant effects are expected to be minor and therefore were not analyzed as a separate topic. Impacts of the limitations on clear cutting in the Land Use Guidelines on scenic quality have been analyzed.

4. Agriculture

Agriculture represents 3 1/2% of the land use in the area. It is expected that this use will continue although some agricultural land may be converted to residential use. Impacts to agriculture were not addressed as a separate topic and were incorporated into discussion of existing land use patterns.

5. Floodplains

Areas that are prone to flooding are identified as the 100-year floodplain. Setbacks from the mean high water mark as proposed in the Guidelines, would limit floodplain development to some extent. Other federal, state and local regulations limit floodplain development, as well. Because no effects from the River Management Plan are expected, and no critical National Park Service actions are proposed within the 100 or 500 year floodplain area, this topic was not analyzed. All actions of the National Park Service will be consistent with Executive Order 11988 concerning floodplains.

6. Wetlands

There are few wetland areas in the corridor. The Land Use Guidelines do not directly affect development in these areas, however, state and local regulations do. Because no effects from the River Management Plan are expected, this topic was not analyzed. As above, all actions of the National Park Service will be consistent with Executive Order 11990 concerning wetlands.

7. Transportation

Existing major transportation routes are identified in Map 1. There are no plans for new paved four lane roads or bridges or widening of existing roads and bridges to four lanes. Maintenance and repair of existing highways and bridges would continue. No effect from the River Management Plan is expected.

8. Landowner Concerns

These include issues and concerns expressed principally by riparian landowners with respect to such matters as litter, trespass, and other visitor use associated problems. The plan does not propose any new actions to deal with such problems; nor are the actions proposed in the Plan expected to increase the projected level of recreation use. Currently, the National Park Service allocates funds to local governments to provide for solid waste removal and law enforcement along the river. These would continue under any of the alternatives. For this reason, landowner

concerns were not addressed in this EIS as a separate environmental analysis topic.

9. Mineral Resources

The corridor has no known, large-scale and economically viable mineral resources. The few traditional mineral extraction industries, such as bluestone mining and small scale gravel operations, would continue under the revised guidelines. For this reason, impacts to mineral resources were not addressed as a separate topic.

10. Endangered Species

The Upper Delaware river corridor provides an environment that enables a wide variety of vegetation and wildlife species to exist. Although none of the plant or animal species that permanently reside in the corridor are identified on Federally endangered or threatened species lists, the Federally endangered bald eagle winters in the area. No permanent critical habitat areas for the bald eagle have been specifically defined within the corridor. Impacts of the plan on the bald eagle and alternatives are discussed in Chapter IV, Environmental Consequences.

The timber rattlesnake is listed by New York State and habitats have been identified within the northern portion of the corridor. The timber rattlesnake lives in dens on steep slopes above the river. New development in areas without provisions restricting building on steep slopes could result in the loss of some timber rattlesnake habitat. However, because of the low level of future development expected and because the character of the rattlesnake habitat makes it an unlikely development site, habitat losses would be negligible.

3. Identification of Alternatives

Previous Planning

The alternatives considered were derived from previous planning efforts and the EIS scoping meetings. The previous planning efforts considered a broad range of alternatives for conserving the river area. The choices were

narrowed with the passage of the enabling legislation P. L. 95-625, Section 704. The previous alternatives considered are described below.

After the Upper Delaware's designation as a study river in 1968 under the Wild and Scenic Rivers Act (P.L. 90-542) a study team was organized. Between 1969 and 1976, a qualification study and environmental impact statement were developed. During that seven year period a variety of alternatives were considered and discussed. A final environmental impact statement was released in 1976 that considered the following alternatives:

1. No Action/No Designation - Under this alternative the Upper Delaware would not be included in the National Wild and Scenic Rivers System.
2. Information Management - This objective was to establish a managing or coordinating agency with visitor contact facilities for orientation and information services with little other responsibility. Also proposed were:
 - o 15,000 acre corridor, 75 mile length
 - o acquire 35 acres in fee
 - o use easements, zoning, use agreements on remaining 14,965 acres
 - o managing body responsible for coordination and visitor management
3. Strip Management - This alternative increased the managing agency's responsibility in resource protection and facility management. Also proposed were:
 - o 15,000 acre corridor, 75 mile length
 - o acquire 4000 acres in fee (200 ft on both sides)
 - o conserve 11,000 acres in less than fee
 - o managing body responsible for resource protection and recreational facilities
4. Control Management - This alternative increased preservation and facility development.
 - o 15,000 acre corridor, 75 mile length
 - o acquire 6000 acres in fee
 - o conserve 9000 acres in less than fee
 - o managing body with greatest responsibility for resource protection and recreational facilities
5. Different Segments - Under this alternative, boundary changes were proposed that would decrease the length of the river area and increase the width of the corridor.
 - a. Hancock, NY to Westcolang, PA
 - o 50,000 acre corridor, 51 miles in length
 - o acquire 400 acres in fee
 - o conserve 49,600 acres in less than fee
 - o resource protection by zoning
 - b. Lordville, NY to Matamoras, PA
 - o 65,000 acre corridor, 65 miles in length
 - o acquire 400 acres in fee
 - o conserve 64,600 acres in less than fee
 - o resource protection by zoning

6. Management Options Considered for Alternative 2, 3, 4, and 5.

- o Local Management - Land use and recreation use would be managed through local ordinances
- o Bi-State Commission - Joint state administration through a bi-state agreement
- o Delaware River Basin Commission - expanded DRBC role to regulate land and recreation use
- o Federal Management - assignment of all aspects of river management to a federal agency.

7. The 1976 Proposed Action - Recommended that the river be included in the National Wild and Scenic rivers system with land protection being accomplished cooperatively and recreation management by NPS. It also called for:

- o 75,000 (which is actually 86,000 due to a miscalculation) acre corridor, 73.4 miles in length
- o land and resource protection primarily through local land use controls
- o NPS management of river recreation use

After Congressional hearings, the 1976 Proposed Action was adopted with some modification and enacted into law through the National Parks and Recreation Act of 1978 (P.L. 95-625). The EIS study team determined that there was no need to re-analyze the above alternatives because of the prior analyses.

Alternatives Considered in the EIS

In addition to the proposed plan, other alternatives were raised during the 1985 scoping sessions. The alternatives raised included:

- o The 1983 Draft Plan
- o Strong federal role up to the maximum the law allows
- o Continuation of interim authority
- o Deauthorization
- o Limited Management Council
- o Federal acquisition

After a review of these suggestions, the following were identified as the alternatives for EIS analysis. The Status Quo alternative is the baseline required for comparison.

Alternative 1: Implement RMP and Guidelines (Proposed Action).

The River Management Plan, containing revised Land and Water Use Guidelines, would be adopted by NPS. An Upper Delaware Council, or partnership of the town governments, the State of New York and the Commonwealth of Pennsylvania, Delaware River Basin Commission, Citizens Advisory Council, and the National Park Service, would be established to coordinate actions within the river corridor. The Guidelines would provide criteria and performance standards for land and water uses and identify compatible, conditional and incompatible uses. Towns would be responsible for managing land uses consistent with the Guidelines. NPS would be responsible for managing recreation use on the river and would acquire, on willing seller - willing buyer basis, approximately 124 acres of land as identified in the RMP to support visitor services and facilities. Overall coordination of the Plan and Guidelines would be the responsibility of the Council.

Alternative 2: Maintain Status Quo (No Action).

NPS would continue to manage river recreation without a River Management Plan or Council. There would be no formal mechanism for intergovernmental coordination and consistency. The revised Land and Water Use Guidelines would be published. NPS would continue present levels of public service and facilities.

Alternative 3: Implement Modified RMP.

Under this alternative, most of the towns would not support forming a Council. However, most towns would still conform with the guidelines. The NPS would modify, adopt, and implement a River Management Plan. In the absence of a designated coordinating body, NPS would assume the responsibilities assigned to the Council in the proposed RMP. The new Land and Water Use Guidelines would be used by NPS to evaluate threats to resources. NPS would acquire land to avert direct threats to resources, up to a limit of 7340 acres.

Consultation and Coordination

The alternatives which were considered and rejected for the purposes of this EIS include:

1983 River Management Plan

The River Management Plan prepared in 1983 designated the National Park Service as the lead agency responsible for implementing the plan and enforcing the 1981 Land and Water Use Guidelines. NPS would be responsible for coordinating overall corridor management acting through an Intergovernmental Coordinating Council (ICC), and a Technical Advisory Group would be established to provide professional assistance to local governments and staff support to the ICC. NPS would be responsible for conformance review and enforcement of river use regulations. Mandatory commercial use permits would be instituted. Resource conservation would rely primarily on local land use controls and existing federal and state authorities.

This alternative was and continues to be politically unacceptable. Local governments cannot be expected to support the 1983 RMP and 1981 guidelines which they strongly opposed in the past because, in part, they did not actively assist in writing the Plan and because local governments had no role in decision-making. Moreover, local governments would not be expected to conform to the RMP and 1981 Land and Water Use Guidelines, thereby reducing the effectiveness of resource protection. The values for which the river was designated would not be adequately protected.

Deauthorization

Under this alternative, the Upper Delaware Scenic and Recreation River Legislation would be amended by Congress to remove the river from the National Wild and Scenic River System. The federal presence in the Upper Delaware region would be eliminated while the states and local governments would continue their responsibilities for management in the river corridor. A River Management Plan would not be adopted and a mechanism for local,

state and federal intergovernmental coordination in river-related activities would not exist. Land and resources would be regulated through existing land use controls and development in the river corridor would continue. NPS would not manage recreational use on the river and would not provide funding for law enforcement, trash collection or planning along the river. Deauthorization would eliminate the protection that is provided to rivers in the National Wild and Scenic Rivers System from reservoirs, hydropower development, and other federally licensed, permitted, funded or initiated activities that have the potential to adversely affect river resources.

The deauthorization alternative is identical to the no action alternative in the 1976 EIS and was previously considered and rejected by Congress. The river would not be protected from resource threats, and recreation use would not be managed. It is also contrary to the enabling legislation.

Limited Management Council

This alternative assumes that the 1985 proposed River Management Plan and revised Land and Water Use Guidelines would be accepted by most local governments, the Delaware River Basin Commission, the States, and the National Park Service. However, many of the towns would choose not to participate on the management council, yet agree to conform to the River Management Plan and Guidelines. This alternative was not evaluated separately because its impacts would be essentially the same as Alternative 3: Implement a Modified RMP.

Federal Acquisition

A traditional federal method of protecting important resource areas is through public acquisition. Significant portions of the river would be proposed for purchase and management by the federal government under this scenario. This alternative has been rejected because it would be contrary to the intent of the enabling legislation. It would also cause severe impacts on those now living in the area because it would displace residents, negatively affect the local tax base, and impact businesses in the area. It is also impractical because of its high cost.

B. Distribution of the EIS for Public Review

ELECTED OFFICIALS

New York

Governor Mario Cuomo
Honorable Alfonso D'Amato, U.S. Senate
Honorable Daniel Patrick Moynihan, U.S. Senate
Honorable Benjamin Gilman, U.S. House of Representatives
Honorable Matthew McHugh, U.S. House of Representatives
Honorable Charles Cook, New York Assemblyman
Honorable Richard Coombe, New York Assemblyman
Honorable Mary McPhillips, New York Assemblyman

Pennsylvania

Governor Richard Thornburgh
Honorable John Heinz, III, U.S. Senate
Honorable Arlen Specter, U.S. Senate
Honorable Joseph McDade, U.S. House of Representatives
Honorable William W. Foster, State Representative
Honorable Charles D. Lemmond, Jr., State Senate

FEDERAL AGENCIES

Advisory Council on Historic Preservation
Department of Agriculture

Farmers Home Administration
Forest Service
Soil Conservation Service
Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Department of Defense, District Offices
U.S. Army Corps of Engineers
Department of Housing and Urban Development, Regional Offices
Department of the Interior
Bureau of Indian Affairs
Bureau of Land Management
Bureau of Mines
U.S. Fish and Wildlife Service, Regional Office
U.S. Geological Survey, Regional Office
Department of Transportation
U.S. Coast Guard, District Office
Federal Highway Administration
Environmental Protection Agency, Regional Office
Federal Emergency Management Agency
Federal Energy Regulatory Commission
Interstate Commerce Commission

REGIONAL AGENCIES

Delaware River Basin Commission
Interstate Bridge Commission

STATE AGENCIES

New York

Department of Agriculture and Markets
Department of Environmental Conservation
Department of Health
Department of Public Service
Department of State
Department of Transportation
Office of Parks, Recreation and Historic Preservation

Consultation and Coordination

Pennsylvania

Department of Agriculture
Department of Commerce
Department of Community Affairs
Department of Education
Department of Environmental Resources
Department of Transportation
Fish Commission
Game Commission
Governor's Energy Council
Historical and Museum Commission
Public Utility Commission

LOCAL AGENCIES AND ORGANIZATIONS

Citizens Advisory Council

Conference of Upper Delaware Townships

New York

Delaware County

Orange County

Sullivan County

Town of Cohecton

Town of Delaware

Town of Fremont

Town of Highland

Town of Lumberland

Town of Tusten

Town of Hancock

Town of Deerpark

Pennsylvania

Pike County

Wayne County

Lackawaxen Township

Shohola Township

Westfall Township

Berlin Township

Ruckingham Township
Damascus Township
Manchester Township
Soil and Water Conservation Districts

ORGANIZATIONS AND BUSINESSES

Abnaki Canoe Club
American Canoe Association, Atlantic Division
American Rivers Conservation Council
Appalachian Mountain Club, Delaware Valley Chapter
Barryville Kayak, Inc./Delaware Valley Organization for Recreation (DVOR)
Catskill Center for Conservation and Development, Inc.
Catskill Waters
Century Hotel
C&O Canal Association
Upper Delaware Citizen's Alliance
Citizens for Preservation of Our Local Heritage
Columbia Gas System Service Corporation
Damascus Township River Association
Friends of the Earth
Lackawanna Audubon Society
Maryland Conservation Council
Mountaineer Rod & Gun Club
National Audubon Society
 Northeast Regional Office
 Mid-Atlantic Regional Office
National Parks and Conservation Association
Orange and Rockland Utilities, Inc.
Pennsylvania Recreation and Park Society, Inc.
Pike County Federation of Sportsmen's Clubs, Inc.
Point Pleasant Canoe Rental & Sales
Potomac River and Trails Council
Sebago Canoe Club
Sierra Club
 Atlantic Chapter
 New Jersey Chapter
 Northeastern Group, Pennsylvania Chapter

Theodore Gordon Flyfishers Inc.
Trout Unlimited
 Al Hazzard Chapter
 Endless Mountains Chapter
 Pennsylvania Council
United American Indians of Delaware Valley
Wanda Canoe Club
Watershed Association of the Delaware River
White Water Canoe
Wilderness Society

Also included will be the local media, landowners and other interested individuals who have requested to be part of the EIS review process.

C. List of Preparers

This Draft Environmental Impact Statement was prepared by staff members of the Division of Park and Resource Planning of the Mid-Atlantic Regional Office of the National Park Service under the overall direction of Michael Gordon, Assistant Regional Director. Joseph DiBello served as the Project Leader. Planners that assisted in the effort included: Patricia Bentley, Barron Bohnet, Martha Crusius, Jonathan Doherty, Gene Gilroy, Alicia Kale, Kathryn Kester, Janet Kroupa, David Lange, Carol Menke, Dixie McKinnon, Debra Miller, Wayne Senville, Aubrey Sherif, and Suzanne Sutro. The staff members have a broad range of educational backgrounds and expertise in the areas of regional and urban planning, landscape architecture, environmental economics, forest management, cartography, biology, geography, recreation management, environmental law, and social science.

Clerical staff included Connie Estrada, Martha Hollis, Sharon Hucks, Louvinia Madison, and Gay Sprowal. Delores Sciulli served as Clerical Supervisor.

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APPENDIX A - SUMMARY OF EIS SCOPING MEETINGS

In developing this draft EIS a series of meetings were held to involve the public, and federal, state, and local agencies in identifying what issues should be addressed. These meetings, referred to as scoping meetings, help decide what will be covered in the EIS and are a first step in its development. Scoping will continue throughout the process.

The topics covered during each of the scoping meetings were:

- 1 - A general overview by NPS of the EIS, including what it is, why it is being developed, how it will be used and the schedule for its development
- 2 - A planning history and background of the RMP
- 3 - A discussion of major impacts which should be addressed
- 4 - A discussion of alternatives to the proposed plan

Highlights of these scoping meetings are described below:

1. Council of Upper Delaware Townships (COUP) - Fosterdale, N.Y., July 23, 1985

After introductory remarks by NPS, COUP members discussed the impacts of the proposed plan. The first issue raised was the economic impact of the plan. A major concern was the effect of the plan on local government services such as police protection, trash removal, traffic, medical support, fire, road maintenance, and schools. Recreation use was discussed, and the need for assessing impacts of use levels, taking social, as well as environmental factors into account. The impacts of the plan on water resources, specifically on groundwater and flows, were also discussed.

In terms of alternatives, the COUP members present indicated that the proposed plan should be the focus of the EIS. A suggested alternative was the 1983 draft river management plan.

2. Counties - Upper Delaware Headquarters, July 25, 1985

Representatives from Wayne and Pike Counties, Pennsylvania, and Delaware, Orange and Sullivan Counties, New York, were invited to discuss the EIS. Environmental issues that need to be assessed that were identified at this meeting included water quality, scenic resources, natural features, fisheries, water flow, regional growth, and recreational use. Detailed information relating to these issues was provided by the participants. There was strong concurrence that the EIS should clearly delineate regional development trends and try to assess how the plan might affect these trends.

The alternatives suggested at this meeting included:

- 1) Proposed River Management Plan
- 2) Stronger federal role
- 3) No Action or a continuation of existing interim authority
- 4) 1983 Plan
- 5) No federal National Scenic and Recreational River Designation

3. Citizens Advisory Council (CAC) - Narrowsburg, NY, July 26, 1985

Those present indicated that plan impacts on land use, recreation use, water quality, fisheries, farming and timbering should be addressed.

Suggested alternatives, in addition to the proposed RMP, included:

- 1) Continuation of existing interim powers by NPS
- 2) Deauthorization
- 3) A strong federal role with acquisition up to the limits of the law

NPS was advised by the CAC that given the amount of planning previously undertaken and the courses of action already considered over the years, the EIS should only address practical and reasonable alternatives.

4. Commonwealth of Pennsylvania Agencies - Harrisburg, PA, July 30, 1985

Pennsylvania agency representatives expressed concern regarding water flow issues on the Upper Delaware. The Fish Commission representative commented

that the impacts on fishing and boating need to be addressed in the EIS. There was some discussion on how to integrate transportation planning with the planning for the Upper Delaware.

In terms of alternatives, it was suggested that NPS look carefully at previous planning concepts since some of the earlier alternatives had valuable features which should be considered.

5. New York State Agencies, Albany, NY, August 6, 1985

The agencies' representatives noted that the impacts of the plan on water flows and releases, hydroelectric development, agricultural resources, land uses, town services, recreation use, natural features, and boundary delineation should be addressed. Specific information on these topics was provided by participants.

In addition to the proposed plan, it was felt that the impacts of partial consistency with the plan could be assessed. An alternative was suggested in which some of the towns agree to participate as part of the Management Council and others do not.

6. Federal Agencies, Delaware River Basin Commission and Interstate Bridge Commission Meeting, Philadelphia, PA, August 8, 1985

Federal and interstate agency officials stressed that the EIS should fully explain the approach to planning and managing the UPDE because it represents a unique cooperative effort. It was suggested that valid information from earlier studies be used to the extent possible. General impacts discussed included water flow, floodplain management, cultural resources, and agricultural lands. In addition, agency representatives commented on areas of interest relevant to their programs. No alternatives were suggested at this time.

APPENDIX B - ENDANGERED SPECIES CONSULTATION



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Suite 322
315 South Allen Street
State College, Pennsylvania 16801

August 7, 1985

Barbara E. Stratton
Outdoor Recreation Planner
U.S. Department of the Interior
National Park Service
143 South Third Street
Philadelphia, PA 19105

Dear Ms. Stratton:

This is in response to your letter to Mr. Charles J. Kulp dated July 16, 1985, requesting information on the presence of federally listed or proposed endangered and threatened species in the vicinity of the Upper Delaware National Scenic and Recreational River in Pike and Wayne Counties, Pennsylvania.

Two federally listed endangered birds are expected to be found as transient species in the project area. They are: bald eagle (Haliaeetus leucocephalus) and peregrine falcon (Falco peregrinus). There is no listed critical habitat for these species in the project area.

The project area is within the historic range of the Indiana bat (Myotis sodalis), but there are no populations of this species known to occur there. The distribution of this species is strongly correlated with the major rivers within its range and it has been postulated that the major rivers are migration routes. Although suitable habitat for nursery colonies may be found within the vicinity of the project, we have no evidence that any Indiana bat nursery colonies exist in the project area.

The small whorled pogonia, an endangered plant, presently exists or has been known to occur in 16 eastern states and Canada. It is most often found in mixed second growth hardwoods with a relatively open canopy and little shrub or herbaceous cover. It has been found, however, in a broad spectrum of conifer/hardwood habitat types and, in fact, may be found almost anywhere in the eastern United States. There are many as yet unanswered questions about its growth, reproduction and other life requirements.

There are presently 18 known existing populations (approximately 600 individuals) of this plant in the eastern U.S. and Canada. Although additional populations could occur almost anywhere, the chances of occurrence at any particular site are extremely remote. The Pennsylvania locations of historical populations are: Berks County (Reading), Chester County (West Chester), Green County (Rogersville), Monroe County (East Stroudsburg), Montgomery County (Willow Grove) and Philadelphia County (Philadelphia). The only known existing

populations in Pennsylvania are located in Centre County near the town of Port Matilda, and in Venango County near the town of Cranberry. To reduce the chance of disturbance by plant collectors, exact locations of plants are not released. We have no information to confirm the presence of these plants within your project area.

Except for the above species, no other federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. We have no information to indicate that any of the above species except bald eagles are likely to be found within your project area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 384, as amended; 16 U.S.C. 1531 et seq.) is required with the Fish and Wildlife Service. A compilation of federally listed endangered and threatened species in Pennsylvania is enclosed for your information.

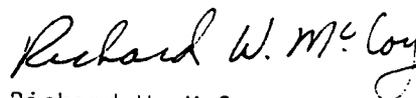
The Pennsylvania Game and Fish Commissions should be contacted for information regarding resident and State listed species. The Pennsylvania Game Commission can provide you with detailed fish and wildlife information from their computerized Pennsylvania Fish and Wildlife database. Ms. Cathy McKenna at (PA Natural Diversity Inventory, 34 Airport Dr., Middletown, PA 17057-5080) can provide you with detailed records of plant and animals of concern that have been identified in your study area and should be addressed in your E.I.S.

The Fish and Wildlife Service has mapped wetlands within part of your study area. These maps are available from Mr. Ralph W. Tiner Jr. at U.S. Fish and Wildlife Service, One Gateway Center, Newton Corner, MA 02158.

We have forwarded a copy of your letter to the Cortland, New York office for response regarding the New York State portion of your project area.

We would like to review any draft and final documents that you produce relating to fish and wildlife resources. If we can be of further assistance, please contact me.

Sincerely,



Richard W. McCoy
Acting Field Supervisor

Enclosure



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

100 Grange Place
Room 202
Cortland, New York 13045

AUG 16 1985

August 14, 1985

Mr. James W. Coleman, Jr.
Regional Director, Mid Atlantic Region
National Park Service
143 South Third Street
Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

The U. S. Fish and Wildlife Service has reviewed the Notice of Intent to prepare an Environmental Impact Statement for a proposed River Management Plan for the Upper Delaware National Scenic and Recreational River, dated July 16, 1985. We offer the following comments which should be addressed in the environmental impact statement.

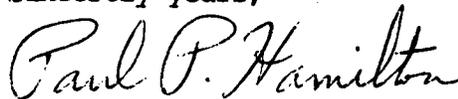
The Upper Delaware River, from Hancock to Callicoon, supports a self-sustaining population of rainbow trout and brown trout. Below Callicoon the Delaware is well known for its smallmouth bass and walleye fishing. American shad migrate annually into the Delaware River and lower East Branch Delaware and in some years enter the lower Beaver Kill. American eel support a small commercial fishery on the Delaware River. Wildlife species found in the Upper Delaware Basin include whitetail deer, black bear, wild turkey, ruffed grouse, woodcock, cottontail rabbit, gray squirrel, varying hare, and woodchuck. Beaver, otter, raccoon, muskrat, mink, red fox, and gray fox are also found in the basin. Waterfowl species utilize the area during migrations and numerous species of landbirds are found throughout the basin. The bald eagle is a common migrant along the Delaware River and overwinters in the area.

River Management Plan alternatives involving facility development and other types of construction activities would be a particular concern of the Fish and Wildlife Service. The EIS should address potential impacts on the fish and wildlife resources of the river corridor and surrounding areas associated with such activities including dredging and filling, shoreline development, and destruction or disturbance of wetland and upland habitats.

The document should also address the importance of interagency coordination in reviewing development proposals within and outside the river corridor which could affect its ecological and recreational values.

Thank you for providing us this early opportunity to comment on this planning effort. If we can be of further assistance, please contact Mr. Mark Clough of this office at FTS 882-4246 or (607) 753-9334.

Sincerely yours,



Paul P. Hamilton
Field Supervisor

cc: NPS, Narrowsburg, NY

FEDERALLY LISTED ENDANGERED AND THREATENED
SPECIES IN PENNSYLVANIA

Common Name	Scientific Name	Status	Distribution
<u>FISHES:</u>			
Cisco, longjaw	<u>Coregonus alpenae</u>	E	Lake Erie - probably extinct
Pike, blue	<u>Stizostedion vitreum glaucum</u>	E	Deep water of Lake Erie - probably extinct
Sturgeon, shortnose*	<u>Acipenser brevirostrum</u>	E	Delaware River & other Atlantic coastal rivers
<u>REPTILES:</u>			
None			
<u>BIRDS:</u>			
Eagle, bald	<u>Haliaeetus leucocephalus</u>	E	Entire State - nests only in Crawford County
Falcon, American peregrine	<u>Falco peregrinus anatum</u>	E	Entire State - re-establishment to former breeding range in progress
Falcon, Arctic peregrine	<u>Falco peregrinus tundrius</u>	E	Entire State migratory - no nesting
Warbler, Kirtland's	<u>Dendroica kirtlandii</u>	E	Western Pennsylvania - occasional migrant
<u>MAMMALS:</u>			
Bat, Indiana	<u>Myotis sodalis</u>	E	Entire State - only known wintering population in PA is in Blair County
Cougar, eastern	<u>Felis concolor cougar</u>	E	Entire State - probably extinct
Fox squirrel, Delmarva	<u>Sciurus niger cinereus</u>	E	Southeastern PA - probably extirpated

Federally listed endangered and threatened species in Pennsylvania (continued)

MOLLUSKS:

Pearly mussel, orange footed	<u>Plethobasus cooperianus</u> **	E	Ohio River drainage - no recent collections
Pearly mussel, pink mucket	<u>Lampsilis orbiculata</u> **	E	Ohio River drainage - no recent collections
Pigtoe, rough	<u>Pleurobema plenum</u>	E	Ohio River drainage - no recent collections

PLANTS:

Small whorled pogonia	<u>Isotria medeoloides</u>	E	Entire State - historical populations in Berks, Chester, Green, Monroe, Montgomery & Philadelphia Counties Existing population in Centre and Venango Counties
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*Principal responsibility for this species is vested with the National Marine Fisheries Service.

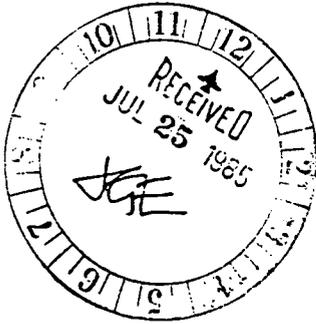
**Since listing, Plethobasus cooperianus has been renamed Plethobasus striatus and Lampsilis orbiculata has been renamed Lampsilis abrupta.

Fish & Wildlife Service, Region 5
March 1983



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Management Division
Habitat Conservation Branch
14 Elm Street
Gloucester, MA 01930-3977



July 23, 1985

F/NER74:DWB

Ms. Barbara E. Stratton
National Park Service
Mid-Atlantic Region
143 South Third Street
Philadelphia, Pennsylvania 19106

Dear Ms. Stratton;

This is in response to your letter dated July 16, 1985, requesting a list of endangered or threatened species present in the area of the Upper Delaware National Scenic and Recreational River in Pike and Wayne Counties, Pennsylvania, and Sullivan, Delaware, and Orange Counties, New York pursuant to Section 7(c) of the Endangered Species Act of 1973, as amended. We have identified the presence of no endangered or threatened species in the project area that come under the jurisdiction of the National Marine Fisheries Service. Should project plans change, or additional information on listed or proposed species become available, this determination may be reconsidered.

Sincerely,

Douglas W. Beach
Wildlife Biologist



APPENDIX C - HOUSING AND RECREATION PROJECTIONS

1. Housing Projections

Population and housing data were analyzed in order to determine the increase in housing units in the river corridor between 1980 and 2005, should current trends continue. Both housing and population can be divided into two categories: permanent and seasonal. Census data is available on the permanent population only (since seasonal residents are enumerated in their year-round places of residence) but is available on both classes of housing.

Permanent population growth for the Upper Delaware towns in the year 2005 has been projected by the New York Department of Commerce and Department of Environmental Conservation, and by the Pennsylvania Department of Environmental Resources, Division of Water Quality. Both projections are based on 1980 census data. They are used here because they are the only town-by-town projections available. The Pennsylvania projections are low--7-9% growth-- while the New York ones range from a 2% decrease (Hancock) to a 29% increase (Deerpark). Researchers have stated that household size, now at 2.7 persons, is expected to decrease by about .5% yearly, which would mean that by the year 2005 it would be at 2.6 persons (University of Oregon, 1977). If we assume that each household implies a new permanent home, we can estimate the total new housing units that would be needed for this population. This assumption does ignore the fact that these new households could convert vacant seasonal homes into year-round residences. However, the fact that the state population projections are fairly conservative should compensate for any overestimate of new housing units that results from this assumption.

Since no data are available for the seasonal population, seasonal home increase are predicted much more roughly: the increase in this category has been estimated at 20% per decade (based on projections used in Munley and Aronson, 1985). This increase is added to the increase in permanent housing units to produce total new housing units projected for each Upper Delaware town.

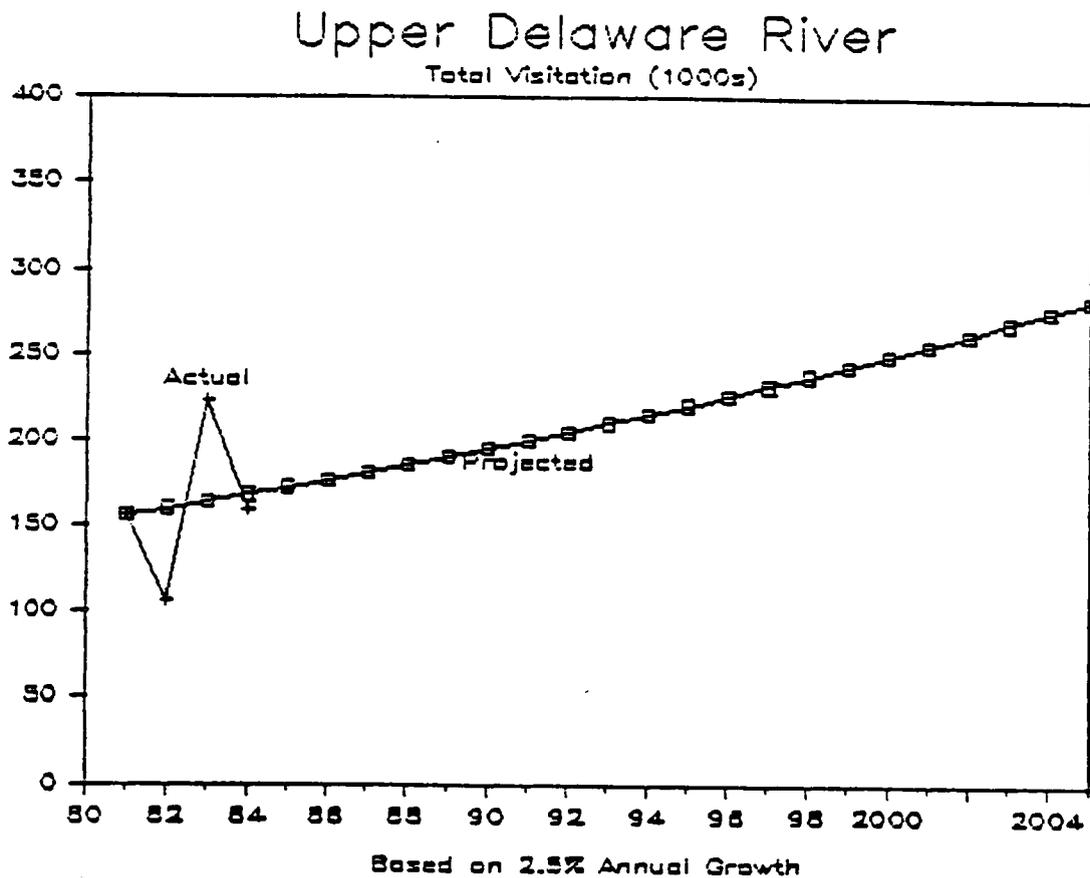
How many of these units are likely to be built in the river corridor? Housing units in the corridor were enumerated through aerial photograph interpretation for the years 1968 and 1983. The 1983 totals can be roughly compared with the 1980 Census data on total housing units in each town. The percentage of each town's housing units found within the corridor is shown on Table C.1. If we assume that this percentage will remain constant we can estimate that about 624 new housing units will be built within the river corridor by the year 2005. This represents an increase of about 25% over the present 2,459 housing units in the corridor in 1983. Although this projection is a very rough one, based on limited data, it seems to represent a continuation of existing trends. Between 1968 and 1983 at least 654 new housing units were built within the river corridor; an increase of 37%. An increase of 25% over the next 20 years seems to be a reasonable assumption.

TABLE C.1 UPPER DELAWARE - HOUSING PROJECTIONS

ITEM	PENNSYLVANIA TOWNSHIPS										NLW YORK TOWNS					TOTAL
	BUCKING- HAM	MAICHES- TER	DAWAS- CUS	BER- LIN	LACKA- WAXEH	SHO- HOLA	WEST- FALL	HAM- COCK	FRE- MONT	DELA- WARE	COCHEC- TON	TUS- TEH	HIGH- LAND	LUMBER- LAND	DEER- PARK	
Population: 1960	593	588	1703	1010	1068	413	336	3907	1047	2141	1070	1087	1136	538	2777	15
1970	578	494	2006	1109	1363	574	1348	3604	1047	2260	1181	1224	1377	837	4370	
1980	667	629	2536	1676	2111	986	1825	3497	1346	2783	1330	1424	1878	1210	5633	
Projected Pop.: 2005/ % increase	715 7%	678 8%	2729 8%	1818 8%	2295 9%	1076 9%	1969 8%	3425 -2%	1500 11%	3300 18%	1500 13%	1500 5%	2150 14%	1500 24%	7275 29%	
Total Housing Units: 1980	393	439	1535	792	1526	867	833	2035	843	1171	817	943	1271	1079	2445	
% built, 1970-1980	31	77	64	66	53	38	45	23	20	15	23	13	24	25	21	
Occupied (year-round) units	246	214	887	565	813	408	653	1259	499	879	500	536	742	453	2046	
Seasonal units	137	212	560	164	629	433	138	571	304	231	275	341	446	442	270	
Projected households: 2005 (pop./household size of 2.6)	275	260	1049	699	883	414	757	1317	577	1269	577	577	827	577	2798	
New housing units (households minus existing occupied units)	29	46	162	134	70	6	104	58	78	390	77	41	85	124	752	
New seasonal homes (with increase of 20% per decade, 1980-2000, minus existing units)	60	93	246	72	277	190	61	251	134	102	121	150	196	194	119	
Total new housing units	89	139	408	206	347	196	165	309	212	492	198	191	281	318	8	
Total structures in corridor, 1983 % of total in whole town, 1980	104 26%	113 26%	279 18%	6 .7%	265 17%	107 12%	69 8%	131 6%	220 20%	272 23%	118 14%	350 37%	198 16%	218 20%	9	2459
Projected new housing units in corridor (same % of total in town)	23	36	73	1	59	23	13	18	55	113	28	71	45	64	3	624 (25% incr)

2. Visitor Use Projections

All actual visitation figures were examined. These included 1972-1982 New York State Department of Environmental Conservation figures and NPS figures. A determination was made to use the NPS figures and mathematically "smooth" them (to smooth out the differences from the highs and lows). See the following table and chart.



**TABLE C.2 UPPER DELAWARE SCENIC AND RECREATIONAL RIVER
Total Visitation (1000s)**

<u>Year</u>	<u>Actual</u>	<u>Projected</u>
81	151.2	
82	107.3	
83	226	
84	162.5	
85	157.7	
86		177.0
87		181.4
88		185.9
89		190.6
90		195.3
91		200.2
92		205.2
93		210.3
94		215.6
95		221.0
96		226.5
97		232.2
98		238.0
99		243.9
2000		250.0
2001		256.3
2002		262.7
2003		269.3
2004		276.0
2005		282.9

Projections are based on a 2.5% annual growth rate. Smoothed values are based on an alpha of .8.

Total Growth Rate

2.5/yr. = 13.1%/5 years
 28.0%/10 years
 63.9%/20 years

APPENDIX D - MAPPING AND DATA GATHERING METHODOLOGY

1. Report Maps

Land Cover

Land use was recorded on base maps according to the general categories forest, agricultural, residential, commercial/industrial, and other. Forested and agricultural lands were mapped using 1984 aerial photos. Using an acre grid, amounts of land covered by hamlets, forests, and agriculture were calculated for each town and for the entire corridor.

For residential and commercial/industrial structures, it was noted whether structure was built before 1965-68 (old) or between 1965 and 1984 (new). Pre-1965 structures were mapped using USGS quad maps surveyed in 1965-68 as a base map and source of existing residential/commercial structures.

Five of the twelve quad sheets were photorevised by USGS in 1985. Numbers and locations of new residential/commercial structures for these areas were taken from these maps, and confirmed through analysis of aerial photographs taken in March, 1984. For other areas, numbers and locations of new residential/commercial structures were obtained solely from the aerial photos.

Numbers of residential structures were counted for each hamlet. Numbers of scattered residential structures were counted, noting whether structures were old (pre-1965-68) or new (between 1965-68 and 1984). If structures were new, it was noted whether they were built on forested or agricultural land.

Total numbers of structures for hamlet, scattered, old, new, from forest, and from agriculture were calculated for each town and for the entire corridor.

Soil Suitability for Septic Effluent

Since the Upper Delaware River corridor incorporates several counties in both Pennsylvania and New York, several sources for soil information were utilized. These included:

1. Twelve Soil Conservation Service overlays reduced to match the USGS quad sheets.
2. Soil Survey for Wayne County.
3. Soil Survey for Orange County.
4. General soil descriptions for Delaware County.
5. Soil interpretation sheets and Soil Survey for Sullivan County.
6. Soil Survey for Pike County.

With the above information, soils not suitable for development were mapped for Pike and Orange counties. However, extensive soil codes for Sullivan and Wayne counties necessitated interpretation by several soil experts in New York and Pennsylvania to adequately locate the unsuitable soils. Because soils for Delaware County were listed by associations, rather than by series (as was the case with all other counties), generalizations were made for the purpose of mapping consistency.

Slopes of 15 Percent or Greater

USGS quad sheets formed the base for mapping steep slopes (15% or greater). After the areas that contained 15% or greater slopes were shaded, the acreage of these areas were counted using a grid. Totals were calculated for each of the following:

1. Total acres of slopes 15% or greater for each town.
2. The percent of each town's acreage within the river corridor boundary which has steep slopes.
3. Total acres in the corridor which are 15% slope or greater
4. Percent of the corridor with steep slopes.

100 Year Flood Plain

The Pennsylvania Department of Environmental Resources provided eleven large mylar maps, which were photographically reduced to the Upper Delaware River Corridor base map size. The flood plain information was then transferred to the topographical base map. Because some mylars were incompleated or missing, this needed data was obtained from National Flood Insurance Program maps and interpolation of NPS background material. These subsequent maps were also reduced to match the base map scale.

Fishery Habitats and Spawning Areas

Data gathered for the Fishery Habitats and Spawning Areas map was obtained from several sources in New York and Pennsylvania. The New York Department of Environmental Conservation (DEC) identified streams and tributaries of important spawning and nursery habitats for trout, American shad and small mouth bass. The DEC also provided boundary maps specifying several important trout spawning tributaries. Two DEC, Division of Fish and Wildlife brochures outlined streams of importance, trout "blue ribbon streams" and "special fishing streams."

The Pennsylvania Fish Commission identified tributaries of major importance for trout, American shad and small mouth bass. Also supplying information for Pennsylvania was the Delaware River Basin Fish and Wildlife Management Cooperative, which has done extensive studies of American shad in the Delaware River. Maps illustrating spawning and nursery areas were provided, as well as a report detailing the management of shad in the Delaware. (See also Appendix B, Fish and Wildlife Service Endangered Species Consultation.)

Historic and Archeological Resources

Specific site information for the Historic and Archeological Resources map was generated by consulting three different sources: the State University of New York at Binghamton's Cultural Resource Survey, New York's State Historic Preservation Office (SHPO), and the NPS staff at the Upper Delaware River. The Cultural Resources map from the 1983 EIS and the archeological maps sent by the NY SHPO were also reviewed.

Existing Recreational Facilities

After data verification, the "Existing Recreation Lands" map from the 1983 EIS was updated and correlated with the "Public and Quasi-Public Recreation Facilities" chart contained within this draft EIS Report. National Park Service staff at the Upper Delaware and the Wayne County Planning Department were consulted.

Proposed Recreational Facilities

Information concerning proposed recreational facilities was derived from the River Management Plan and verified through conversations with the NPS staff at the Upper Delaware.

2. Working Maps

Zoning

Zoning maps were obtained from towns which have them (some towns only have subdivision ordinances). The maps that were available were reduced or enlarged to the USGS base map scale. The zoning and district information was then transferred to the Delaware River Corridor base map.

Wetlands

Basic wetlands areas were delineated from the USGS topographical maps. Wetlands for Sullivan and Orange Counties from the New York State Department of Environmental Conservation, Division of Regulatory Affairs were used for reference. No maps for Delaware County, NY were available.

For Pennsylvania, the Division of Coastal Zone Management of the Department of Environmental Resources made four maps used for preparation of the working wetlands map. The four maps applicable to the Delaware corridor were Eldred, Shohola, Port Jervis North and Pond Eddy.

Structures with 100' of the River, Steep Slopes and Ridgelines

Based on the land cover, maps were generated which indicated structures built since 1965-1968 within 100' of the Delaware River, on steep slopes or ridgelines. A list was subsequently compiled listing and totaling each category by township. Totals were also calculated for the entire corridor.

Important Species

Information for New York State originated from draft maps and lists of rare plant sites produced by the New York Natural Heritage Program. A review of critical habitat maps at the New York Department of Environmental Conservation, Wildlife Division was also conducted.

For Pennsylvania, plant information was derived from the NPS/Morris Arboretum Report "Endangered, Threatened, Vulnerable and Rare Vascular Plants of the Pennsylvania Portion of UPDE River," and the NPS Regional Scientist. For animal information, an interview with NPS staff at the Upper Delaware Narrowsburg office was held and the Pennsylvania Biological Survey was consulted. The Northeastern Regional Office, Pennsylvania Game Commission was also consulted.

APPENDIX E - WATER QUALITY TESTING DATA - 1985
UPPER DELAWARE SUMMER LIMNOLOGICAL PROGRAM

Report of Findings Representing the Preliminary Analyses of Data
for the Upper Delaware Summer Limnological Program

Summary of Work

From June 3 through August 30, 1985, the Delaware River Basin Commission (DRBC) obtained water quality data from 84 tributaries and Delaware River locations in the Upper Delaware Scenic and Recreational River (UDSRR), the Delaware Water Gap National Recreation Area (DWGNRA), and the intervening eight miles. The distribution of the sampling was as follows: UDSRR tributaries, 38 sampled; UDSRR river locations, 12 sampled; intervening reach, 3 locations sampled; DWGNRA tributaries, 22 sampled; and DWGNRA river locations, 8 sampled.

Over 350 station-visits* were made with data obtained on fecal bacteria, dissolved oxygen, pH, conductivity and temperature. Biological samples from 65 station-visits were also collected and processed from 46 individual river locations or tributaries. In addition, seven follow-up surveys were performed in response to the data findings: three in the UDSRR area, two in the intervening reach and two in the DWGNRA. Literally thousands of data were obtained.

As part of the program, UDSRR staff collected bacterial samples at three Delaware River locations in May (analyzed by DRBC) and analyzed night time dissolved oxygen concentrations once at two locations on 3 nights each. The DWGNRA staff obtained data on 15 tributaries (including 3 not sampled by DRBC) and 10 Delaware River locations (including 2 not sampled by DRBC) with a total of 191 station-visits. The DWGNRA sampling (May through September) were conducted by the Resource Management staff and the weekly beach monitoring program was performed by the Maintenance Department. Most DWGNRA samples were analyzed at the NPS Bushkill Laboratory. The DWGNRA and DRBC staffs conducted mutual quality assurance activities throughout the sampling season and provided each other with equipment and manpower backup when needed.

* A station-visit is defined as one trip to one location with at least one water quality parameter sampled.

The following summarizes the 1985 Upper Delaware Summer Limnological Program.

Number of Locations Sampled

	UDSRR	Intervening Reach	DWGNRA	Total
Tributaries	38	1	25	64
River Locations	12	2	10	24
Total	50	3	35	88

Number of Station Visits

DRBC	NPS-UDSRR	NPS-DWGNRA	Total
350	9	191	550

Summary of Preliminary Findings

1. The data indicate that most study area tributaries and Delaware River locations have good to excellent water quality. Exceptions are noted.
2. The 1985 data collection program coincided with a period of less-than-normal precipitation (including the pre-sampling period) and reduced flow releases from the three New York City reservoirs. The impact of these circumstances was felt on the UDSRR. In the UDSRR water quality was visually degraded due to increased aquatic plant growth (algae, rooted plants and periphyton). The reasons for the increased plant activity are due to the lack of spring nutrient/sediment flushing, the slower stream velocities and the greater amount of river bed exposure to sunlight penetration. The plant activity is believed responsible for the apparent greater amounts of river foam and films observed during the summer. Chemically, dissolved oxygen concentrations in the river generally were at or greater than saturation. Extremely high super-saturation was observed on numerous occasions including values greater than 150%. The effect was most noticeable in the upper reaches of the UDSRR and were, as expected, accompanied by high pH values, which occasionally violated stream standards. Concern for the corollary drop in dissolved oxygen during night times led to night time D.O. measurements in late August. The

sampling indicated that D.O. was not decreasing to values below stream standards, but the possibility cannot be discounted at other locations and dates. In general, however, it is believed that the drought-related impacts were more visual than of serious water quality concern. In certain tributaries fecal bacterial levels appeared to increase greatly just before the stream dried up. This phenomena has been suggested previously as one possible course of rain-related bacterial increases; the result of runoff flushing out stagnant water pools.

3. The most polluted tributaries in the DWGNRA are Cherry and Brodhead Creeks. Cherry Creek is a public health threat as reflected by high fecal coliform values. The organic pollution (raw sewage discharges) does not appear to deleteriously impact aquatic life. Brodhead Creek is less of a public health threat, but pollution in the watershed (point and non-point sources) appears to impact aquatic life negatively. Projects to correct problems in these watersheds are currently in the pre-construction review process. The DRBC/NPS data are an excellent baseline for assessing water quality improvement as a result of these projects.
4. Special surveys were conducted on White Brook, the Poxono-Depew Island reach of the Delaware and the Port Jervis-Milford reach of the Delaware. White Brook has unusually high conductivity values. The survey concluded that limestone deposits were the likely cause of high conductivity and not a landfill as was originally theorized. The Poxono Island survey was the result of higher-than-expected fecal coliform values. It has been tentatively concluded that these values are the result of sample taking in the backwater areas created by low flows. Backwater areas as a source of naturally occurring bacteria is a potential special study in 1986. The Port Jervis survey was the result of past data suggesting that the Port Jervis-Matamoras area is the major contributor of fecal bacteria to the Delaware River in the DWGNRA. The 1985 survey data supports this tentative conclusion. Bacterial levels were highest on the New York side of the river and upstream of Port Jervis sewage treatment plant discharge. More investigation is warranted.

5. Data for most UDSRR tributaries indicate no water quality problems. Exceptions are Little Equinunk Creek which appears to be impacted by streams transversing barnyard areas and Callicoon Creek within the Town of Callicoon. Neither condition appears particularly serious although some type of follow-up actions should occur. The latter may be responsible for the higher than normal fecal bacterial levels observed at the Callicoon Access Area--New York.

6. Because of the unusual hydrological conditions, it was not possible to obtain significant information on rain-related non-point sources. However, it is believed, in most cases, that the data set represents critical water quality conditions. A full analyses of the data will be published in the annual report of the Upper Delaware Summer Limnological Program. This report will also recommend follow-up activities by the DRBC, the NPS and other agencies, including recommendations concerning future monitoring.

7. Data acquired in 1985 are presented in the attached listings. The data should be considered preliminary since corrections are possible until final publication. It is planned that DRBC and NPS data from 1984 and 1985 will be entered into the U.S. EPA Storet system in 1985.

APPENDIX F - LAND USE REGULATIONS AND JURISDICTION

The 15 towns and townships exercise all their traditional rights and powers. Under the powers granted respectively by the Pennsylvania Municipalities Planning Code and the New York Town Law's zoning and subdivision enabling legislation, local governments are largely responsible for determining present and future land uses within their borders.

In New York, seven of the eight towns have zoning ordinances. Seven have subdivision regulations. In Pennsylvania, four of the seven towns currently have zoning ordinances, while six of the seven have enacted subdivision regulations. The New York towns of Delaware, Tusten, Lumberland and Fremont, and the Pennsylvania townships of Damascus and Lackawaxen have designated river districts.

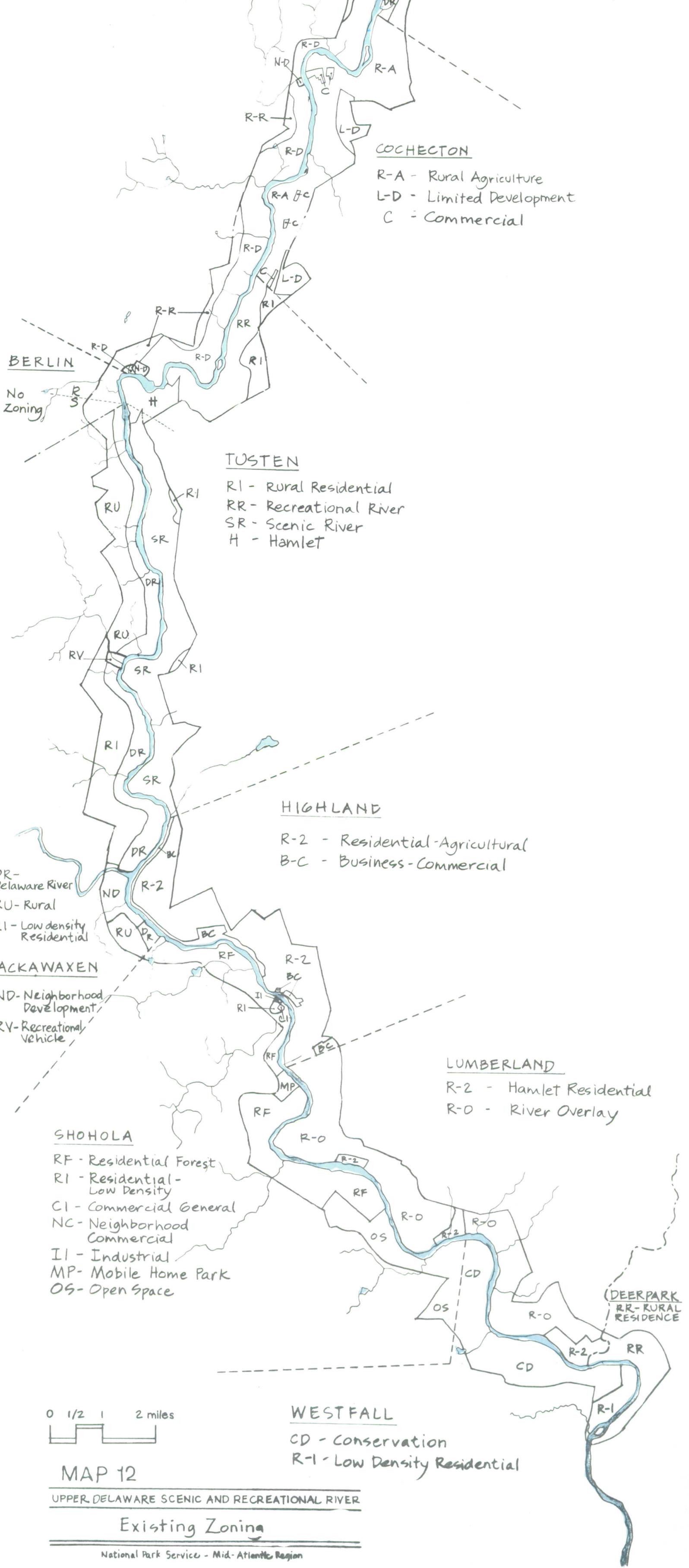
State law in both New York and Pennsylvania also authorizes towns to enter into intergovernmental cooperation agreements for the performance of certain functions. These agreements can also be entered into with towns in each other's state. The Pennsylvania Intergovernmental Cooperation Act is very broad, and authorizes local governments to jointly cooperate in the exercise of "their respective governmental function, powers or responsibilities." Pennsylvania's Municipalities Planning Code further provides specific authority for local governments to prepare joint municipal comprehensive plans and joint municipal zoning ordinances. New York's Interlocal Agreement Act authorizes local governments to enter into cooperative agreements for the performance of a broad range of functions including, among other things, garbage collection and disposal, sewage disposal, planning services and the provision of parks and other recreation areas.

Table 7.1: Inventory of Local Land Use Controls and Plans

	Planning Agency	Comprehensive Plan	Zoning Ordinance	Zoning Appeals Agency	Site Plan Review*	Building Inspector	Subdivision Regulations	Flood Insurance	Sanitary Code	Building Permit Ordinance	Mobile Home Ordinance	Building Code	Junkyard Ordinance
<u>New York</u>													
<u>Delaware County</u>													
Hancock	X	-	-	-	-	X	X	X	-	X	-	-	-
<u>Orange County</u>													
Deerpark	X	X	X	X	X	X	X	X	U	X	X	X	X
<u>Sullivan County</u>													
Cochecton	X	-	X	X	-	X	X	X	-	X	X	X	X
<u>Delaware</u>													
Delaware	X	C	X	X	X	X	X	X	X	X	X	X	X
<u>Fremont</u>													
Fremont	X	-	X	X	X	X	X	X	U	X	X	X	X
<u>Highland</u>													
Highland	X	-	X	X	X	X	-	X	X	X	-	X	C
<u>Lumberland</u>													
Lumberland	X	X	X	X	X	X	X	X	X	X	X	X	-
<u>Tusten</u>													
Tusten	X	X	X	X	X	X	X	X	X	X	X	X	-
<u>Pennsylvania</u>													
<u>Pike County</u>													
Lackawaxen	X	X	X	X		X	X	X	X	X	X	X	X
<u>Shohola</u>													
Shohola	X	X	X	X		X	X	X	X	X	X	X	X
<u>Westfall</u>													
Westfall	X	X	X	X		X	X	X	X	X	X	X	X
<u>Wayne County</u>													
Berlin	X	X	-	-		-	-	X	X	X	X	X	-
<u>Buckingham</u>													
Buckingham	-	X	-	-		-	X	X	X	X	X	-	-
<u>Damascus</u>													
Damascus	X	X	X	X		-	X	X	X	X	X	-	X
<u>Manchester</u>													
Manchester	X	X	-	-		-	X	X	X	X	X	-	-

* Not applicable to Pennsylvania Townships
 X: Exists
 -: Does not exist
 C: Completed but not adopted
 U: Unknown





COCHECTON

- R-A - Rural Agriculture
- L-D - Limited Development
- C - Commercial

TUSTEN

- RI - Rural Residential
- RR - Recreational River
- SR - Scenic River
- H - Hamlet

HIGHLAND

- R-2 - Residential-Agricultural
- B-C - Business-Commercial

LUMBERLAND

- R-2 - Hamlet Residential
- R-0 - River Overlay

WESTFALL

- CD - Conservation
- R-1 - Low Density Residential

SHOHOLA

- RF - Residential Forest
- RI - Residential-Low Density
- CI - Commercial General
- NC - Neighborhood Commercial
- II - Industrial
- MP - Mobile Home Park
- OS - Open Space

LACKAWAXEN

- ND - Neighborhood Development
- RV - Recreational Vehicle

BERLIN

No Zoning

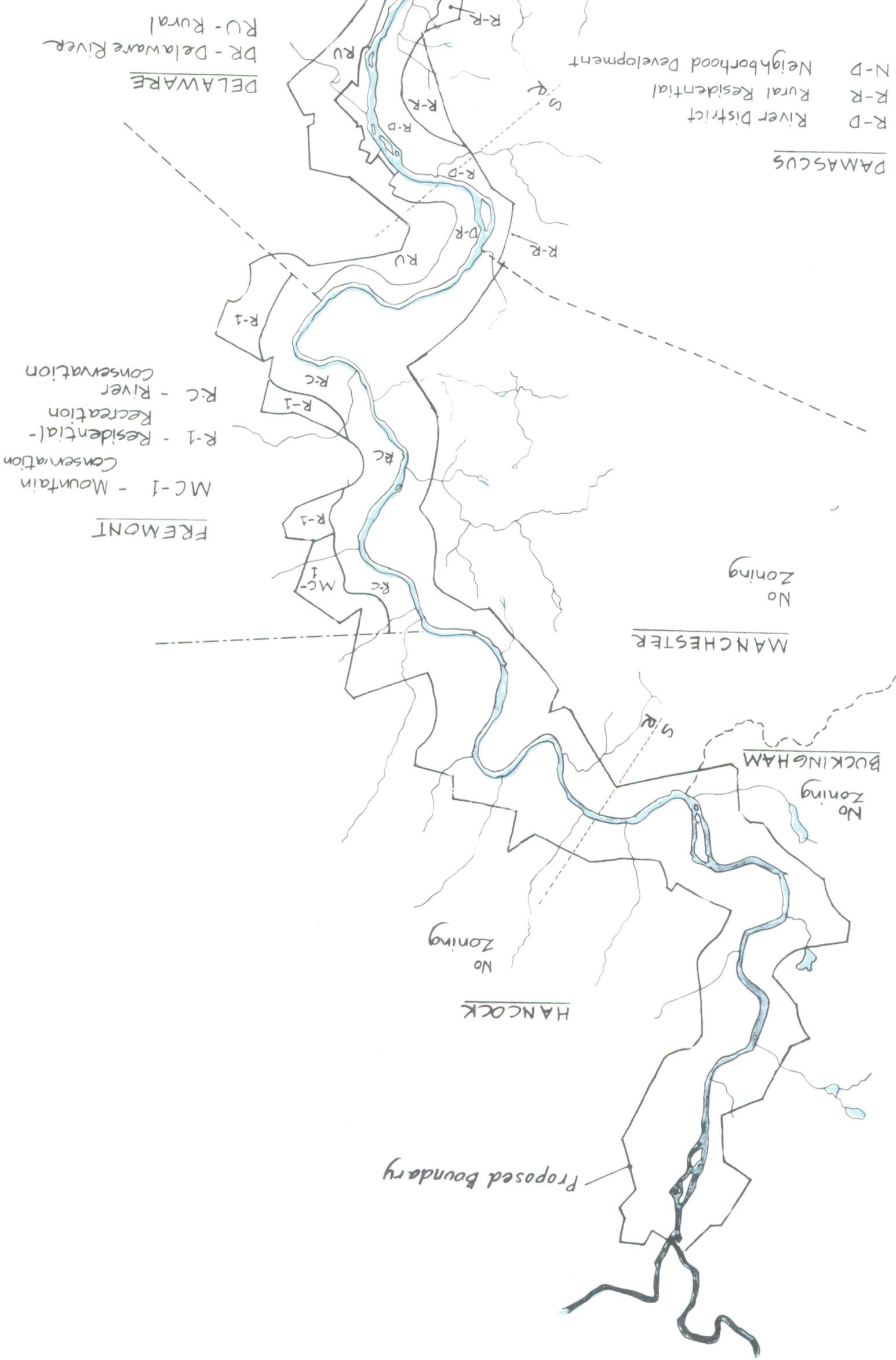
0 1/2 1 2 miles



MAP 12

UPPER DELAWARE SCENIC AND RECREATIONAL RIVER

Existing Zoning



Counties enforce county ordinances, maintain county roads and bridges, and prepare and update comprehensive plans at the county level. Counties are also responsible for reviewing certain local land use actions. The Pennsylvania Municipalities Planning Code provides for advisory review by county planning agencies of: applications for local subdivision and land development approval; proposed local zoning ordinances and amendments; and planned residential development applications (in towns which authorize such developments). In New York, Article 12-B of the General Municipal Law requires county planning board review of any local zoning regulation, zoning amendment, special permit, variance, or site plan affecting, among other things, property located within 500 feet of: a municipal boundary; an existing or proposed county or state park or other recreation area; or an existing or proposed county or state road or existing or proposed county or state owned land on which a public building is situated. If a local agency acts contrary to the county planning board's recommendation, it must also adopt a resolution stating why it acted contrary to the department recommendation.

Both states operate several programs that have a direct bearing on land use. Among the principal New York State laws and programs affecting land use are the following:

- (1) The State Environmental Quality Review Act ("SEQRA") requires the preparation of environmental impact statements for actions undertaken by state or local agencies (including towns and other political subdivisions of the State) which may have a significant effect on the environment. The impact statement is to assess alternatives to the proposed action, as well as mitigation measures to minimize adverse environmental effects.
- (2) The Freshwater Wetlands Act establishes a process for classifying wetlands and regulating land use activities affecting them. The

Act generally requires any person conducting an activity affecting a wetland area greater than 12.4 acres in size to first obtain a permit. Activities covered by the Act include any form of draining, dredging, excavation, dumping, or filling, as well as the placing of any structures in the wetland. Permits are also required for activities occurring within 100 feet of the wetland "if they impinge upon or otherwise substantially affect the wetland." The Act allows for the regulation of wetlands less than 12.4 acres in size if an individual or group petitions the Commissioner of the Department of Environmental Conservation to include the wetland under the Act. The Act also provides for local government administration of the permit system.

- (3) The Stream Protection Act requires that any person or local government must obtain a state permit prior to modifying or disturbing the bed or banks of a protected stream. This includes the removal of sand, gravel or other material, as well as the placement of fill. The Act exempts certain activities from the permit requirement, including the crossing of the stream by livestock and the withdrawal of irrigation water. The Act also requires permits for the construction of permanent docks or piers, as well as for the construction of any impoundments or obstructions across the stream (whether temporary or permanent). A principal exemption is for farm ponds. The Delaware River and many of its tributaries are covered by the Act.

Before granting a permit, the Department of Environmental Conservation is to consider the effects on soils, forests, water, fish and wildlife likely to result from the proposed change or modification of the stream or from the proposed removal of sand, gravel or other material from the stream bed or banks.

- (4) The State Floodplain Management Program provides for the regulation of development within floodplain areas. The program requires minimum elevations for new construction, and sets other standards for construction within floodplain areas. State regulations do not apply within towns which have adopted local flood hazard regulations which meet minimum federal requirements for participation in the national flood insurance program administered by FEMA. All towns in Sullivan County participated in the federal program.
- (5) New York's Environmental Conservation Law provide that any subdivision involving five or more parcels of five acres or less in size must receive approval (from either the Department of Environmental Conservation or a city or county health department) of its plans for obtaining and furnishing adequate water supply before any portion of the subdivision can be sold or before any building can be erected. Similarly any subdivision of 49 or more parcels must obtain approval from the NY DEC for sewage facilities.
- (6) The Solid Waste Management Law requires a Department of Environmental Conservation permit for solid waste management facilities, including sanitary landfills, incinerators, and other types of processing or disposal facilities. Permits are required both for construction and operation of the facility. The State's review is generally designed to ensure that the facility is sited, constructed and operated in an environmentally sound manner, and that no solid waste enters into either surface or ground waters.
- (7) The Mined Land Reclamation Law requires that all mining operations involving the extraction of more than 1,000 tons of minerals (including coal, sand, gravel or any "solid material or substance

of commercial value found in natural deposits) within a twelve month period obtain a permit from the Department of Environmental Conservation. In order to obtain a permit, the applicant must submit a "mined land-use plan," which must include information regarding the proposed mining method and program for preventing pollution and soil erosion loss, as well as a reclamation plan covering revegetation, disposal of debris and waste, and regrading. The law further requires the posting of a bond to cover the estimated cost of the necessary reclamation work.

- (8) The Oil, Gas and Solution Mining Law requires a permit from the Department of Environmental Conservation prior to drilling for oil or gas. Operators must maintain an adequate bond to cover the costs of well plugging.
- (9) The Cooperative Forest Management Program establishes regional forest practice boards throughout the State. Each regional board is authorized to set voluntary forest practice standards for its region, and to assist landowners with all phases of forest management.
- (10) The State Real Property Tax Law provides for property tax relief to encourage the preservation of forest lands. In order to qualify for the program, the landowner must have an approved management plan. The plan must be prepared by a forester and must, among other things, describe such erosion and sediment control measures as may be necessary.
- (11) The Agricultural District Act empowers county legislative bodies, on petition from owners of at least 500 acres, to establish agricultural districts. Land within an agricultural district is

eligible to be assessed at agricultural value rather than market value (agricultural lands outside of districts are also eligible for agricultural value assessment under certain conditions). The creation of an agricultural district also limits (within the district) the use of public funds that would facilitate non-farm land uses, as well as local regulations that would unreasonably restrict or regulate farm structures or farming practices.

(12) The Soil and Water Conservation District Law provides for the creation of county conservation districts. Each district is authorized to develop comprehensive plans for the conservation of soil and water resources, for the control of soil erosion, for the prevention of floodwater and sediment damages, and for agricultural water management. The law also calls for each district to develop individual soil and water conservation plans for every owner or occupier of more than 25 acres of land used to raise agricultural or forestry products who requests such a plan.

(13) The New York Public Service Law requires the Public Service Commission to approve the routing of all major utility transmission facilities. This includes electric transmission lines of 125 KV or more and at least one mile in length, or of between 100 and 125 KV and at least ten miles in length. Fuel gas transmission line extending more than 1,000 feet and used to transport gas at pressures of 125 psi or more are also subject to Commission approval. In deciding on applications the Commission is to determine whether the proposal represents the minimum adverse environmental impact taking into account the nature and economics of the various alternatives.

Among the principal Pennsylvania laws and programs affecting land use are the following:

- (1) The Dam Safety and Encroachments Act provides for the regulation of dams and reservoirs, water obstructions and encroachments so as to protect the environment, people, property, and navigation. No person may construct, operate or modify any dam, water obstruction or encroachment without a permit from the Department of Environmental Resources. The term "encroachment" means any structure or activity which in any manner changes, expands or diminishes the course, current or cross section of any water course, floodway, or body of water. This includes aerial as well as water crossings, bridges and major piers. A "body of water" is defined as any natural or artificial lake, pond, reservoir, swamp, marsh or wetland. Thus, the Department has the authority to regulate dredging and filling activities (as encroachments) and to regulate all dams, obstructions and encroachments in wetlands (as bodies of water).

- (2) Pennsylvania Sewage Facilities Act provides for the protection of public health, safety, and welfare through the development and implementation of sewage waste disposal plans and regulations. Municipalities must submit plans for sewage services to DER for areas within its jurisdiction. Two or more municipalities may submit joint plans. The plans include current and projected service for the next ten years, and discuss areas experiencing sewage disposal problems. The official plan requirement helps delineate where new development will take place, and can be used to minimize sprawl and development in scenic and recreational areas.

The Act also requires a permit for the construction and installation of individual and community sewage systems. Proposed systems must conform to the official municipal plan. County health departments, municipalities, or local agencies may administer the permit system. The Act further provides that contracts for the sale of lots in areas without a community sewage system must indicate the lack of a system and the need for an individual sewage system permit.

- (3) The Soil Conservation Law provides for the creation of county conservation districts which are authorized, among other things, to cooperate with area landowners and municipalities on erosion control and prevention projects, and to help in implementation of the sedimentation aspects of the State Storm Water Management Act.
- (4) The Clean Streams Law contains provisions designed to control erosion and the sedimentation of waters. These provisions include the requirement for a state permit whenever earthmoving activities disturb 25 acres or more. The Department of Environmental Reserves must review the adequacy of the applicant's plan to mitigate soil erosion. The Department may delegate the administration and enforcement of the permitting to local governments provided the local government has an acceptable plan for administering the program.
- (5) Pennsylvania's Floodplain Management Act requires municipalities having areas subject to flooding to adopt floodplain management regulations (conforming to the National Flood Insurance Program). The Department of Community Affairs, in consultation with the

Department of Environmental Resources, reviews and approves all local floodplain management regulations. The Department of Community Affairs has also listed types of structures which may present a special hazard to public health or safety if located in floodplain areas. These include hospitals, nursing homes, jails, and new mobile home parks. Such structures cannot be built in the floodplain unless the municipality determines that the structure will be built in a manner which protects the health and safety of the public and the structure's occupants, and that the structure will be located and designed so as to prevent possible pollution, increased flood levels, and debris endangering life or property.

- (6) The Solid Waste Management Act provides that any person or municipality owning land to be used for solid waste processing, storage, treatment or disposal, must obtain a permit from the Department of Environmental Resources. The short-term storage of non-hazardous by-products, which will be used to process or manufacture other products, does not require a permit, nor does the storage of non-hazardous agricultural waste or food processing waste. Engineering plans and relevant data prepared by a registered professional engineer must accompany the application. All applicants must explain how they intend to comply with other Pennsylvania environmental acts including the Clean Streams Law, the Surface Mining Conservation and Reclamation Act, the Air Pollution Control Act, and the Dam Safety and Encroachment Act in their permit application.

The Department may revoke a permit if any provision of the Act (or of any other State or Federal environmental protection law)

is not complied with. A permit may also be revoked or suspended if the facility creates a public nuisance or potential hazard to the public or adversely affects the environment even if it is operating in compliance with the rules and regulations of the Solid Waste Management Act.

- (7) The Pennsylvania Farmland and Forest Land Assessment Act is designed to encourage the retention of farm and forest land, and to minimize conversion of such land to other uses. This is accomplished by providing that property tax assessments for land participating in the program be based on use value instead of fair market value. In return for the lower assessment the landowner agrees to retain his land as farm or forest land for a specified number of years.

- (8) The Noncoal Surface Mining Conservation and Reclamation Act regulates surface mining of all minerals (including sand and gravel) other than coal. A state permit is required for mining operations involving 500 tons of minerals or more per year for commercial purposes. In order to receive a permit, the applicant must submit a surveyed map or plan showing the affected land, along with a detailed reclamation plan. The reclamation plan must include a plan for establishing a diverse, effective and permanent vegetative cover at least equal in extent of cover to the area's natural vegetation. Before the permit is issued, the Department of Environmental Resources must approve the reclamation plan and must find that the proposed operation will not cause pollution to the waters of the Commonwealth. The Act further requires the applicant to post a bond sufficient to cover the cost of completing the approved reclamation plan. The Act also generally prohibits any surface mining within 300 feet of any building and within 100 feet of the bank of any stream.

- (9) The Surface Mining Conservation and Reclamation Act, which by a 1984 legislative amendment applies only to the surface mining of bituminous and anthracite coal, prohibits mining of such coal on any land within the boundaries of a federally designated Wild and Scenic River. Operations existing prior to August 4, 1977 are excepted.
- (10) The Oil and Gas Act of 1984 regulates wells drilled for producing, extracting or injecting any gas, petroleum or other liquid related to oil or gas production. No well may be drilled without a permit from the Department of Environmental Resources. The Act requires the Department to consider the impact of a proposed well on public resources, including national or state scenic rivers, historical and archaeological sites, and habitats of rare and endangered flora and fauna and other critical communities. Each well owner or operator is required to restore the land surface within the area disturbed in siting, drilling, completing and producing the well. The Act contains additional requirements designed to minimize erosion and sedimentation and the pollution of surface and groundwater.
- (11) Pennsylvania's Electric Transmission Line Siting Regulations provide for review by the Public Utility Commission of the routing of any high voltage transmission line (125 KV or more and at least one mile in length, or between 100 and 125 KV and at least ten miles in length). Among the information which the Commission is to consider in reviewing an application is the impact of the link on scenic and historic areas, including impacts on land use, soil and sedimentation, plant and wildlife habitats, terrain, hydrology and landscape. The applicant is also required to identify any archaeological, geologic, historic,

scenic, or wilderness areas within two miles of the proposed right-of-way. Commission regulations further call on the applicant to identify reasonable alternatives routes and compare the merits and demerits of each route.

- (11) The Pennsylvania Historic Districts Law Authorizes towns to establish historic districts. No such ordinance, however, can take effect until after the Pennsylvania Historical and Museum Commission has certified the historical significance of the district defined in the ordinance. The law provides that the local governing body may certify to the appropriateness of the erection, reconstruction, alteration, restoration or demolition of any building within the historic district, taking into account the effect of the proposed change on the historic and architectural nature of the district. The law authorizes the governing body to appoint a Board of Historical Architectural Review to provide advice concerning the issuance of certificates of appropriateness.

The National Park Service's jurisdiction focuses on recreation activities in and on the water. The National Park Service also has proprietary jurisdiction over lands and structures which the agency owns or leases. These lands, and these lands only are subject to Title 36 of the Code of Federal Regulations. In the Upper Delaware River Valley, these areas are:

- o the headquarters site at Damascus
- o the leased North and South District offices in Cocheton and Shohola
- o the Roebling Bridge in Lackawaxen and Highland
- o the leased visitor contact facilities in Narrowsburg
- o the leased access sites at Skinners Falls and Narrowsburg

The jurisdiction within the Delaware River drainage area of the Delaware River Basin Commission was established by the 1961 Interstate/Federal Compact, (P.L. 87-328). The Commission's responsibilities include water supply, conservation and quality, water storage projects, drought contingencies, flood loss reduction, water based recreation, fisheries, flow maintenance, and hydroelectric power generation. The Commission reviews specific proposed water-related development projects in various categories which meet minimum requirements established by the Commission's Administrative Manual, Part II, Rules of Practice and Procedure. In addition, the Commission may review any project referred by a signatory state or federal agency to the Commission.

Appendix G - Cooperating Agencies

The National Park Service (NPS) requested that the following agencies participate as a cooperating agency to review draft material for the Environmental Impact Statement for the Upper Delaware Scenic and Recreational River:

Mr. Gerald Hansler, Executive Director
Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628

Richard Pepino
Environmental Protection Agency
NEPA Compliance Section
841 Chestnut Street
Philadelphia, PA 19107

Barbara Pastalove
Environmental Protection Agency
Region II
26 Federal Plaza
New York, NY 10278

District Engineer
U.S. Army Corps of Engineers
2nd and Chestnut Streets
Philadelphia, PA 19106

Lou Wunderlich
U.S. Coast Guard
Third District Commander
Governor's Island, NY 10004

Charles Kulp
U.S. Fish and Wildlife Service
315 South Allen Street, Suite 322
State College, PA 16801

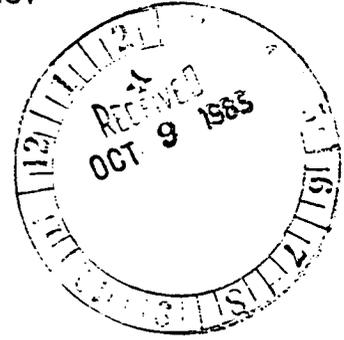
William Harkness
Deputy Delaware River Master
U.S. Geological Survey
405 Broad Street
Milford, PA 18337

Their responses follow.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III

841 Chestnut Building
Philadelphia, Pennsylvania 19107



September 30, 1985

J. Glenn Eugster, Chief
Division of Park and Resource Planning
National Park Service
Mid-Atlantic Region
U.S. Department of Interior
143 South Third Street
Philadelphia, Pennsylvania 19106

Re: Proposed Upper Delaware River Management Plan (RMP)
D18 (MAR-PD) - Upper Delaware Draft EIS

Dear Mr. Eugster:

In response to your letter of September 23, 1985 regarding the RMP/EIS project, we wish to confirm our desire to participate as a cooperating agency.

Thank you for the opportunity to be involved with the review and comments on this project. Further correspondence should be directed to James L. LaBuy (215/597-0355) of my staff.

Sincerely,

Richard V. Pepino, Chief
NEPA Compliance Section

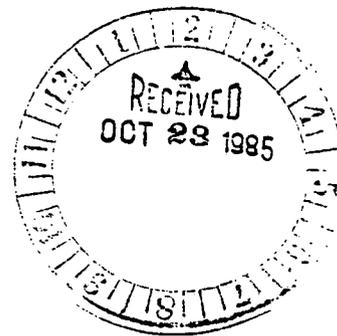
cc: William Wisniewski (3PM00)
Charles Sapp (3WM50)
Chris Miltscher, Region II



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278

OCT 18 1985



Mr. Joseph DiBello
Division of Park and Resource Planning
National Park Service, Mid-Atlantic Region
U.S. Department of Interior
143 South Third Street
Philadelphia, Pennsylvania 19106

Dear Mr. DiBello:

This is in response to the request for comments regarding the notice of intent to file a draft environmental impact statement (EIS) for the Upper Delaware River Management Plan. We have reviewed the notice of intent and scoping issues to be addressed in the draft EIS, and find that they adequately cover the general environmental impacts that should be addressed for a project of this type.

We look forward to reviewing the draft EIS, and request that five copies be sent to us when it becomes available. If there are any questions, Mr. Robert Hargrove of my staff may be contacted at (212) 264-5390.

Sincerely yours,

Barbara Pastalove

Barbara Pastalove, Chief
Environmental Impacts Branch

cc: R. Pepino, EPA Region III



DEPARTMENT OF THE ARMY
PHILADELPHIA DISTRICT, CORPS OF ENGINEERS
CUSTOM HOUSE—2 D & CHESTNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106-2991

OCT 16 1985

REPLY TO
ATTENTION OF
Environmental Resources Branch



Mr. J. Glenn Eugster
Chief, Division of Park
and Resource Planning
U.S. Department of the Interior
National Park Service
Mid-Atlantic Region
143 South 3rd Street
Philadelphia, Pennsylvania 19106

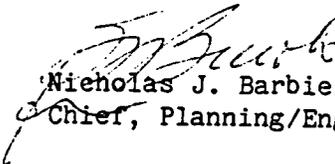
Dear Mr. Eugster:

This is in response to your letter of September 23, 1985 concerning the proposed Upper Delaware River Management Plan.

In accordance with your request and Section 1501.6 of the Council of Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, the U.S. Army Corps of Engineers (Corps) will participate as a cooperating agency for the proposed project. As requested, the Corps' participation will consist of review of preliminary draft material within our area of expertise.

If there are any questions regarding this letter, please contact Mr. Roy E. Denmark, Jr., Chief, Environmental Resources Branch at (215) 597-4833 or at the above address.

Sincerely,


Nicholas J. Barbieri, P.E.
Chief, Planning/Engineering Division



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Suite 322
315 South Allen Street
State College, Pennsylvania 16801



October 9, 1985

J. Glenn Eugster, Chief
Division of Park and Resource
Planning
National Park Service
143 South Third Street
Philadelphia, PA 19106

Re: D18(MAR-PD)
Upper Delaware draft EIS

Dear Mr. Eugster:

Due to time and personnel constraints, we will not participate as a cooperating agency in preparation of the subject draft EIS. We would be willing to review and provide informal comments on draft documents prior to submitting formal comments on the draft EIS if you so desire.

Sincerely,

Edward W. Perry
Acting Field Supervisor



United States Department of the Interior

GEOLOGICAL SURVEY
OFFICE OF THE DELAWARE RIVER MASTER
405 Broad Street
Milford, Pennsylvania 18337



September 27, 1985

Mr. J. Glenn Eugster
Chief, Division of Park and Resource Planning
National Park Service
Mid-Atlantic Region
143 South Third Street
Philadelphia, PA 19106

Dear Mr. Eugster:

This will confirm receipt of your letter dated September 23, 1985 concerning the draft EIS you are preparing for the Upper Delaware River Management Plan (RMP).

I discussed your request for my participation as a cooperating agency in review of draft materials with Joseph DiBello by telephone today. This letter will confirm my agreement to assist in any way that you feel I can be of help.

Sincerely,

William E. Harkness
Deputy Delaware River Master

cc: F.T. Schaefer
Delaware River Master

COMMENTS AND RESPONSES

INTRODUCTION

This section of the EIS includes those comments received on the draft statement and responses to them. A total of 35 letters were received; 9 from federal agencies; 13 from state and local agencies; 10 from private organizations, including the Citizens Advisory Council; and 3 from private citizens. As appropriate, changes were made in the final EIS to reflect comments on the draft statement.

Several of the respondents commented on both the draft EIS and the draft RMP, with the comments often interspersed throughout the same letter. The entire letter is included in this section. Where the comment is only on the draft RMP, the response notes whether changes were made in the final plan or includes a summary statement of the changes. All comments on the draft RMP were considered by the Plan Revision Committee in preparing the final plan. Refer to the final River Management Plan for details and additional information on any changes in the final RMP.

LIST OF COMMENTING AGENCIES, ORGANIZATIONS AND INDIVIDUALS

FEDERAL AGENCIES

Letter

1. Advisory Council on Historic Preservation
2. Department of the Army
3. Federal Emergency Management Agency
4. U. S. Department of Agriculture
5. Number not issued
6. U.S. Environmental Protection Agency
7. U. S. Department of Housing and Urban Development
8. U.S. Department of the Interior: Fish and Wildlife Service
9. U.S. Department of the Interior: Geological Survey
10. U.S. Department of Labor

STATE AGENCIES

New York

11. Department of Agriculture and Marketing
12. Department of Environmental Conservation
13. Department of Health
14. Office of Parks, Recreation and Historic Preservation
15. Department of Public Service
16. Department of State

Pennsylvania

17. Department of Environmental Resources
18. PA Intergovernment Coordinating Council
19. Number not issued

LOCAL AGENCIES

20. City of New York: Department of Environmental Protection
21. Delaware River Basin Commission
22. Sullivan County Department of Planning and Economic Development
23. Sullivan County Soil and Water Conservation District
24. Westfall Township Planning Commission

PRIVATE ORGANIZATIONS

25. Adirondack Mountain Club
26. Appalachian Mountain Club
27. Upper Delaware Citizens Advisory Council
28. Columbia Gas Transmission Corporation
29. Delaware Otsego Audubon Society
30. Delaware Valley Forestry Service
31. National Audubon Society
32. Sierra Club-Atlantic Chapter
33. Sierra Club-Pennsylvania Chapter
34. Trout Unlimited

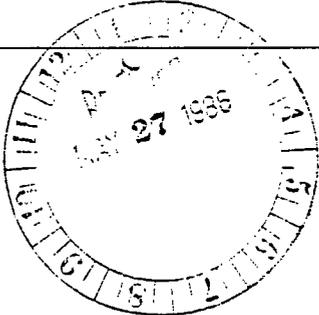
INDIVIDUALS

35. Charles H. Ellis III
36. Matthew N. Gillan
37. Rita Kuhn

Advisory Council On Historic Preservation

The Old Post Office Building
1100 Pennsylvania Avenue, NW, #609
Washington, DC 20004

MID-ATLANTIC REGION		Initial and Date
MAY 20 1986		
Director		
Deputy Director		
EEO		
Public Affairs		
Mgmt. & Operations		
GIS		
Leads		
Plan Development		
Administration		
Personnel		
Program		
Finance		
Property		
Information Mgmt.		
Commercial Acts		



MAY 16 1986

James W. Coleman, Jr.
Regional Director
Mid-Atlantic Region
National Park Service
143 South Third Street
Philadelphia, PA 19106

REF: Revised River Management Plan
Upper Delaware Scenic and Recreation River
Pennsylvania and New York

Dear Mr. Coleman:

1.1 We have reviewed with interest the River Management Plan (RMP) for the Upper Delaware. It has obviously taken a great deal of work to coordinate the various private, local, state, and Federal interests in the area, particularly when the River will remain predominately in private ownership. We have also recently received the Environmental Impact Statement (EIS) for the plan, which makes clear that the Upper Delaware has many important resources that require careful management to preserve.

1.2 The EIS identifies the major threat to historic and archeological properties in the river corridor as incompatible land uses, principally from projected residential development. To respond to this threat, the RMP identifies responsibilities of the members of the Upper Delaware Management Council, which includes the NPS, the states of New York and Pennsylvania, and the fifteen towns and townships that are within the river corridor. While we understand the voluntary, collaborative nature of the Management Council, we nevertheless feel that additional responsibilities should be assigned to the members.

1.3 For example, we note that the principal duty of the fifteen towns is to consider forming cultural resource commissions and historic districts. We strongly endorse both these measures as an effective and essential way for a local government to directly protect historic buildings as it grows. However, these are not the only means for a local government to encourage preservation. Other techniques include:

--technical assistance, which can encourage and provide information on the proper rehabilitation of buildings and the proper consideration of archeological resources,

--financial assistance for rehabilitation, or restrictions on other financial assistance programs, such as block grants, to ensure that historic buildings are not inadvertently harmed, and

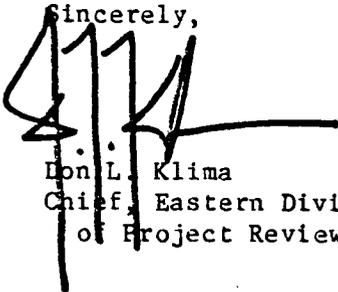
--temporary tax abateements for the increase in value that is attributable to a rehabilitation or restoration.

1.4 We also believe that the NPS's role could also be more active in encouraging preservation and increasing awareness of the historic resources. For example, NPS could conduct or coordinate planning for historic properties in the manner set forth in the Secretary of the Interior's Standards (published in the Federal Register at 48 FR, p. 44716, et. seq.). While NPS will not be acquiring land in the river corridor, it might consider other activities that will preserve historic properties, including accepting easements, where willingly offered, and negotiating agreements with private owners to preserve and open historic buildings to the public.

1.5 We also strongly support NPS responsibility to foster public programs on historic properties and to recognize the communities, their residents and their commerce as integral part of the area's heritage. Studies of preservation in rural areas (for example, the essays in New Directions in Rural Preservation, a 1979 publication of the Heritage Conservation and Recreation Service) have indicated that maintaining the economic base that created and sustains the community is critical to historic preservation. It may be worthwhile to more explicitly recognize the traditional economic activities, such as farming and logging, that are important to the communities. This does not mean, however, that new and incompatible uses should be encouraged simply because they increase economic activity in the area.

If you would like to discuss any of these suggestions, please contact Michael C. Quinn at (202) 786-0505. Thank you for your cooperation.

Sincerely,



Don L. Klima
Chief, Eastern Division
of Project Review

1.1. No response required.

1.2 and 1.3. The final RMP identifies specific cultural resource management responsibilities of the National Park Service, states, townships, Upper Delaware Council, CAC, the private sector, and existing, private non-profit organizations. The responsibilities include those identified by the Advisory Council such as, in part, technical assistance to local governments and private landowners on preservation techniques, financial assistance for historic planning, and National Park Service cultural resource planning. The final RMP also identifies key historic sites with management responsibilities. See the final RMP pages 78-81 for details and further information.

1.4. See items 1.2 and 1.3 above.

1.5. The final RMP and Land and Water Use Guidelines, explicitly recognize all traditional land use activities in the area; the Plan and Guidelines encourage the continuation and protection of those uses. See Table II.2 of this EIS for an identification of selected principles of the Land and Water Use Guidelines, including the protection of existing patterns of land uses, and the final RMP on pages 119-125 for further details and information.

CEE JUNE 17 1986



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
PHILADELPHIA DISTRICT, CORPS OF ENGINEERS
CUSTOM HOUSE-2 D & CHESTNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106-2991

JUN 17 1986



Environmental Resources Branch

James W. Coleman, Jr.
Director, Mid-Atlantic Region
National Park Service
143 South Third Street
Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

2.1 This is in regard to your request for comment on the Draft Environmental Impact Statement (DEIS) for the Upper Delaware Scenic and Recreational River in New York and Pennsylvania.

By letter dated September 23, 1985, Mr. J. Glenn Eugster of your staff requested that the Army Corps of Engineers accept the role of a cooperating agency on the subject project, as specified in 40 CFR 1501.6. We responded by accepting this role in a letter dated October 16, 1985, which is reproduced on Page 260 of your DEIS, and by indicating that we would review the preliminary DEIS material. We were not, however, given the opportunity to review the preliminary DEIS before your release of the DEIS for public comment. Consequently, some of our comments may have been more appropriately submitted prior to the release of the DEIS.

The following comments are offered for your consideration:

2.2 a. We recommend that the basic framework of the final River Management Plan (RMP) be structured such that, over its 20-year projected life, the plan will not be compromised by replacements of personnel representing the signatory parties to the plan who disagree with the spirit and intent of the plan.

2.3 b. The generalizations provided under the No Action Alternative (Baseline conditions) should be augmented with discussions of existing data.

2.4 c. The rationale for zoning as the sole criterion for participation in the RMP and how the factors listed in Tables II.2 and II.3 fit into this rationale should be discussed.

-2.5 d. The discussions of water quality should include any potential impacts and contingency actions relative to pollutants carried in from tributaries and runoff outside of the immediate project area.

- 2.6 e. The impacts to the RMP from the 3 towns not adopting the RMP and from the other 12 towns that will be at various levels of consistency with the RMP (eg., the actions listed on Pages 28 through 30) are not fully discussed.
- 2.7 f. The method for resolving disagreements within the Management Council is not clear, particularly relative to real estate acquisitions.
- 2.8 g. The 20-year projected increase of housing development is given as 625 units for both Alternatives 1 and 3, despite the nearly 30,000-acre difference between these alternatives.
- 2.9 h. The discussions of recreation opportunities in the Environmental Consequences section of the DEIS account for only 77% of total visitation, which is described in terms of canoeing and fishing only. It is unclear if the remaining percentage is made up of users of the 28 privately owned and operated access sites, for which data are not available. Moreover, these discussions do not include other activities such as picnicking and swimming.
- 2.10 i. Impacts from the construction and operation of the proposed facilities under Alternatives 1 and 3 on environmental resources, such as waters of the United States (Corps Regulatory involvement) and wildlife habitat, are not addressed in the DEIS.
- 2.11 j. Under the lettering and numbering format used in the DEIS, the discussions of any one alternative can be easily confused with those of the other two, particularly in the Environmental Consequences section, because the alternative is identified only once, at the beginning of its particular section. We recommend a tiered numbering system or running heads for the Final EIS.

Should you have any questions relative to our comments, please contact Mr. Roy E. Denmark, Jr., Chief of our Environmental Resources Branch, at (215) 597-4833 or through the above address.

Sincerely,


S. J. BUCOLO, PE

Acting Chief, Planning/Engineering Division

Copy Furnished:

DAEN-CWP-V
NADPL-R

2.1. No response required.

2.2. There are no signatories, per se, to the plan other than the Secretary of the Interior. The Upper Delaware Council, proposed in the final River Management Plan, is a voluntary association of its members (local governments, states, the Citizens Advisory Council, the Delaware River Basin Commission, and the National Park Service) to achieve the objectives identified in the plan and guidelines. Any governmental entity that might disagree with the spirit and intent of the plan likely would not be in conformance with the plan and guidelines and/or would not join the Upper Delaware Council.

As described in the plan, the Council would operate under contract to the Secretary of the Interior. It would review and make recommendations concerning the laws, plans, and ordinances of local towns with respect to conformance with the plan and guidelines, and would monitor the enforcement of those plans and ordinances. If the recommendations of the Council are consistent with the plan and guidelines, the Secretary would accept them and take no further actions. The contract would be for five years and would be automatically reviewed, provided that the responsibilities assigned to the Council are adequately implemented and that the general responsibilities specified in Section 704 of Public Law 95-625 are upheld.

The plan cannot be compromised by changes of Council personnel or representatives to the Council. Should the Council members not follow the terms of the contract with the Secretary, and thereby not follow the plan, then the Secretary would take those actions necessary to preclude any possible clear and direct threats to river corridor resources. This would include the prevention of incompatible land uses, if necessary, and as a last resort, by land acquisition.

In towns not in conformance with the plan and guidelines and not Council members, the Secretary would also take those actions necessary to preclude clear and direct threats to the area. See Alternatives 1 and 3 for further discussion of actions in non-conforming towns and the impacts thereof.

2.3. Baseline conditions and existing data are fully discussed in Chapter III of the EIS.

2.4. Zoning (or the laws, plans and ordinances of local governments) is not the sole criterion for participation in the plan. Willingness and previous planning activities and actions were also considered. Tables II.2 and III.3 were developed to assist in the determination of expected environmental impact analysis. Existing zoning ordinances, plans, and laws of the local governments were used as a data source for analyzing current and potential town consistency with the Land and Water Use Guidelines and the plan.

2.5. The discussion of water quality beginning on page 68 points out that the water quality of tributaries is monitored and potential impacts from outside the area would be identified through this effort. However, the actions recommended in the plan affect only the project area. It is expected that existing federal, state and local water quality and land use regulations identified in Appendix F on page 253 would continue to apply outside of the immediate project area.

2.6. Chapter II highlights the major actions which towns are expected to take. The impacts of these actions are fully described in Chapter IV.

2.7. The general rules of the Council are found on pages 20-21 of the proposed final plan. These rules would be followed for all Council business, including the resolution of disagreements among its members. Each member would have a vote on the Council; one more than half the membership would constitute a quorum for transacting business, provided that there are present at least one more than half of the town members.

All proposed National Park Service acquisitions for recreation management are identified in the plan. The Council would oversee the acquisition of the identified acreage to assure that all of the conditions of the plan are fulfilled in the acquisition process.

Acquisition through the use of eminent domain, if found necessary to preclude clear and direct threats to valley resources, would also involve the Council. The plan, pages 55-57, identifies the role of the Council in the process of using eminent domain. In its actions concerning land acquisition, the Council would follow the rules of operation on pages 20-21.

2.8. The acreage for alternatives 1 and 3 is identical, 55,574.5. Alternative 2 is approximately 30,000 acres greater, 86,000. This alternative incorporates the existing legislative boundary excluding the boundary modifications in the proposed plan (alternative 1).

The rate of growth in housing and recreation use remains the same under all alternatives. The percentage differences between alternative 2 and alternatives 1 and 3 are incorporated in the environmental analysis with respect to land use and development projections.

2.9. Total visitation figures noted in Table III.6 show total visitor use. On page 145 of EIS, it is noted the analysis focuses on water-based activities which are boating and fishing. These uses account for about 77% of total visitation. The remaining 23% are other uses such as hiking, sight-seeing, and picnicking which are land-based. Page 145 of the EIS has been modified to point this out.

2.10. The final EIS contains specific environmental impact analysis of the impacts of the proposed facilities on significant resource topics, including water quality, for each of the three alternatives. Additionally, it is noted that the National Park Service will follow all applicable federal laws and executive orders pertaining to the protection of environmental resources, including wetlands, flood plains, and endangered species, and/or involving the Corps of Engineers regulatory authorities as noted on EIS page 211.

2.11. The format of the final EIS has been improved by adding running heads to assist the reader in an easy identification of the alternatives and the environmental impacts of each.

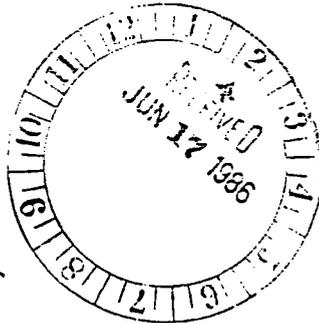
Joe #11111-0103



Federal Emergency Management Agency

Region III 105 South 7th Street Philadelphia, Pennsylvania 19106

June 10, 1986



Mr. James W. Coleman, Jr.
Regional Director
U. S. Department of the Interior
National Park Service
143 South Third Street
Philadelphia, Pa. 19106

MID-ATLANTIC REGION		Initial and Date
<i>[Signature]</i>	1986	
Director		<i>[Signature]</i>
Deputy Director		
EE		
Public Affairs		
Technical Operations		
CEM		
Legal		
Plan - Development		<i>[Signature]</i>
Administration		
Personnel		
Program		
Finance		
Property		
Information Mgmt.		
Commercial Act		

RE: Upper Delaware Scenic & Recreational River, New York and Pennsylvania

Dear Mr. Coleman:

3.1 We have received the Environmental Assessment for subject project. Based upon this office's review, we offer no comments regarding the floodplain development proposed. Thank you for the opportunity to have reviewed the report.

Sincerely,

Richard Z. Konard
for

Walter P. Pierson
Chief
Natural and Technological
Hazards Division

3.1. No response required.

4.1. No response required.



United States
Department of
Agriculture

Forest
Service

Northeastern Area
State and Private
Forestry

370 Reed Road
Broomall, PA 19008

MID-ATLANTIC REGION		Initial and Date
JUL 22 1986		
Director		
Deputy Director		
Public Affairs		
Insp. & Operations		
CRM		
Lands		
Plan - Development		
Administration		
Personnel		
Program		
Finance		
Property		
Information Mgmt.		
Commercial Acts		

Reply to: 1950

Date: July 14, 1986

Mr. James W. Coleman, Jr.
Regional Director
Mid Atlantic Region
National Park Service
143 South Third Street
Philadelphia, PA. 19106

Dear Mr. Coleman:

5.1 We have reviewed the Draft Environmental Impact Statement for the Upper Delaware Scenic and Recreational River, New York and Pennsylvania and find it well written and acceptable.

The inclusion of graphical representation of soils, cover and zoning should prove especially useful in future determinations of land use and development.

Our compliments on your excellent effort.

Sincerely,

Thomas N. Schenarts
THOMAS N. SCHENARTS
Area Director



5.1. No response required.

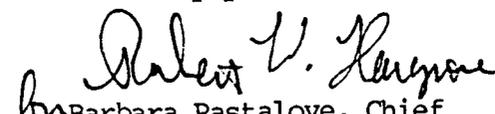
- 6.4 For example, we can envision the potential for land located in a conforming town having a clear and direct threat to the resource values of the study area. Such land should have equal consideration for acquisition as land that is threatened in a non-conforming town.

The EIS/RMP should also provide the following information.

- 6.5 ° Discuss how the proposed boundaries were derived for each alternative.
- 6.6 ° Indicate how the RMP would protect water quality from effluent from on-lot septic disposal systems that may be placed on soils with limitation for this type of sewage disposal.
- 6.7 ° Discuss how the RMP will address the Cortese Landfill which is located within the EIS/RMP boundaries and which is listed on the National Priorities List under the Comprehensive Environmental Response, Compensation, and Liability Act.
- 6.8 ° Discuss how the RMP would handle future additional nutrient loads from existing and proposed sewage treatment facilities (e.g., the Broome County Meat Packing Company facility in Deposit, New York).
- 6.9 ° Discuss how this RMP relates to the draft general management and environmental assessment for the Delaware Water Gap and any other proposed recreation plans within its management boundaries.
- 6.10 ° Describe how the recreational use numbers were obtained.
- 6.11 Based on our review, and in accordance with EPA policy, we have rated this draft EIS as EC-2, indicating we have environmental concerns (EC) about how the RMP will be implemented and that additional information (2) regarding the above-mentioned issues/impacts is requested in the final EIS.

Thank you for the opportunity to comment. If there are any questions, Mr. Robert Hargrove, Chief, Federal Activities Section, may be contacted at (212) 264-5390.

Sincerely yours,


for Barbara Pastalove, Chief
Environmental Impacts Branch

6.1 and 6.2. No response required.

6.3. The proposed Upper Delaware Council is a voluntary association of its members formed to achieve the objectives and purposes identified in the plan. The responsibilities of its individual members are specifically identified in the final plan. It will operate under contract (see RMP page 23) to the National Park Service for the reviews of local laws, plans, ordinances and the enforcement of each. The National Park Service will not oversee Council actions, per se, but will actively participate as a full member. The National Park Service's role in the Council and its important project review function have been made more explicit and expanded in the final plan. Pages 18-38 of the final plan provide details and further information.

6.4. Land acquisition criteria is the same for all towns, whether or not they participate in the Council. Similarly, the Land and Water Use Guidelines are the same for all towns. In towns which are consistent with the plan and guidelines, there will be no clear and direct threats to resource values because they will be prevented by local ordinances and enforcement. In conforming towns no land acquisition can occur beyond the very limited acquisition (124 acres) identified in the plan for recreation management purposes. In towns not in conformance with the plan and guidelines the Secretary has the authority to prevent incompatible land uses, see RMP page 118 for further details.

6.5. For alternative I and III see RMP, page 59-61, for a description of how the boundary was derived. Alternative II is the present boundary of approximately 86,000 which was approved as part of the 1978 enabling legislation.

6.6. Objective 5 of the Land and Water Use Guidelines and the plan suggest possible actions to protect water quality from on-lot septic disposal systems on page 120 including providing for 2 acre minimum lot size and existing building requirements.

6.7. Page 66 of the proposed River Management Plan recommends that the State of New York play a more active role in identifying and cleaning up landfill sites which would include the Cortese landfill and page 67 recommends that the National Park Service take a strong leadership position and undertake all actions to reduce or eliminate the threat to water quality and public health associated with the landfill. Additionally, action is being taken under the Superfund program (managed by the Environmental Protection Agency) with respect to the Cortese landfill.

6.8. The Upper Delaware Council will have no responsibilities outside the project boundary nor do National Park Service authorities in Section 704 of P.L. 95-625 extend beyond the boundary (except the prohibition on water resources projects having direct and adverse effects on the Upper Delaware River, as a unit of the National Wild and Scenic Rivers System, as per Section 7 of Public Law 90-542). The Water Resources Management Section of the RMP identifies the specific responsibilities of the members of the Upper Delaware Council with respect to monitoring the quality of the waters within the boundary. Refer to the final RMP for detail and further information.

6.9. Although both areas are in close proximity and are both units of the National Park System, the enabling legislation for each area is very different. Each area is distinct in that it is managed with different objectives as will be outlined in their respective management plans. The amount of land in public ownership and the level of facility development is different.

6.10. EIS Tables III.5 and III.6 show the sources of recreational use numbers and EIS pages 96 and 98 describe how they were obtained.

6.11. EPA will be provided with a copy of the final RMP and EIS.

cc: Franklin
Krotenberg
ECO File
Geller/Chron
Monticciolo
R. Morgan (Buffalo)

7.1. The definitions of the term for impacts (major, moderate, minor, negligible) are found on page 127 of the EIS. In the context used with respect to trout fisheries, the term "minor" refers to a specific group of individual fish. Negligible impacts are considered less than minor as defined in the EIS. The analysis of impacts is based on all expected development.

RJ
6/12/86



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Suite 322
315 South Allen Street
State College, Pennsylvania 16801

June 10, 1986

Memorandum

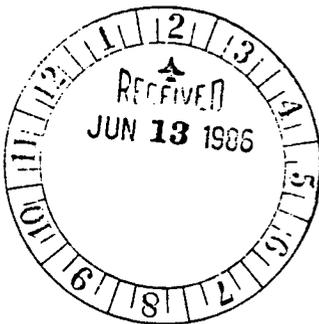
To: Regional Director, National Park Service, Philadelphia, Pennsylvania

From: Acting Field Supervisor, Fish and Wildlife Service, State College, Pennsylvania

Subject: Draft EIS for Upper Delaware Scenic and Recreational River (EC 86/20)

8.1 We reviewed the draft document and find that it adequately discusses fish and wildlife resources in the Upper Delaware River. We are pleased that the proposed River Management Plan proposes actions to protect fish habitat.

Edward Perry



8.1. No response required.



United States Department of the Interior

GEOLOGICAL SURVEY

OFFICE OF THE DELAWARE RIVER MASTER

Mail Stop 433, National Center, Reston, Va. 22092

MID-ATLANTIC REGION	Initial and Date
MAY 22 1986	
Director	
Asst. Dir. - Director	
Asst. Dir. - Chief	
Public Affairs	
May 15, 1986	
Plan - Delaware	
Personnel	
Program	
Finance	
Property	
Information Systems	
Commercial Ads	

Mr. James W. Coleman, Jr.
 Director, Mid-Atlantic Region
 National Park Service
 143 South Third Street
 Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

9.1 In looking over the Draft Environmental Impact Statement for the Upper Delaware Scenic and Recreational River, I find that the first paragraph on page 68 is somewhat misleading.

The augmented conservation releases that were initiated on an experimental basis in 1977 resulted from an agreement by the States of Delaware, New Jersey, New York, the Commonwealth of Pennsylvania, the City of New York, and this office. The changes, which were a departure from a rigid interpretation of the 1954 Supreme Court Decree, were put into effect on July 1, 1977, on the basis of my oral approval. The documentation for the record was approved by me on July 7, 1977, and reported promptly to the Court.

A copy of the Memorandum of Agreement is enclosed for your information. Note that the Delaware River Basin Commission was not a party to this agreement, but it was involved in subsequent negotiations to extend the augmented release program. The Commission can only direct modifications in releases and diversions after formal declaration of drought or emergency and with the unanimous consent of its members, or with unanimous consent of parties to the 1954 Decree.

Sincerely yours,

Francis T. Schaefer
 Francis T. Schaefer, P.E.
 Delaware River Master

Enclosure

Copy to: William E. Harkness (w/o enclosure)
 Joseph P. Conway
 Craig Stewart



United States Department of the Interior

GEOLOGICAL SURVEY

OFFICE OF THE DELAWARE RIVER MASTER

Mail Stop 433, Reston, Va. 22092

MEMORANDUM OF AGREEMENT

WHEREAS the City of New York operates the Pepacton, Cannonsville, and Neversink Reservoirs in the upper Delaware River basin (hereinafter "the Reservoirs"); and

WHEREAS diversions of water from the Reservoirs by the City of New York are authorized and compensating releases of water from the Reservoirs downstream are stipulated under the terms of the Decree of the United States Supreme Court in *New Jersey v. New York*, 347 U.S. 995 (1954) (hereinafter "the 1954 Decree"); and

WHEREAS the 1954 Decree requires releases of water from the Reservoirs at the direction and under the supervision of the Delaware River Master, appointed under the 1954 Decree, which releases are designed to maintain a minimum basic rate of flow at the gaging station of the United States Geological Survey on the Delaware River at Montague, New Jersey, of 1,750 cubic feet per second; and

WHEREAS the 1954 Decree also provides under Paragraph III B 1 (c),

- 1 -



for the computation of an annual excess release quantity and, under Paragraph III B 1 (d), for the release of the annual excess quantity; and

WHEREAS the State of New York desires to effect certain flows downstream of the Reservoirs and in the main stem of the Delaware River for the purpose of enhancing the river quality, fishery, esthetics, and recreation; and to afford an opportunity for the evaluation of the effects of the modified flows; and

WHEREAS the parties to the Decree have no objections to a temporary redistribution of the annual excess quantity from June 1, 1977 through May 31, 1978 and from June 1, 1978 through May 31, 1979 for the above purpose, to the extent the annual excess quantity will permit;

THEREFORE, the undersigned parties to the 1954 Decree unanimously agree to a temporary redistribution of the annual excess quantity, and the parties unanimously request the approval of the River Master to the temporary redistribution of the annual excess release quantity, from June 1, 1977 through May 31, 1978, and from June 1, 1978 through May 31, 1979, under the following schedule to the extent the annual excess quantity will permit:

(a) The following minimum releases shall be made at all times from the Reservoirs:

<u>Reservoir</u>	<u>Releases in Cubic Feet Per Second</u>	
	<u>April 1 to October 31</u>	<u>November 1 to March 31</u>
Pepacton	70	50
Cannonsville	45 (except 325 June 15 to August 15)	33
Neversink	45	25

(b) An amount as determined by the State of New York, the total of which shall not exceed 6,000 second-foot-days per year, for the relief of thermal stress in the rivers downstream of the reservoirs and the main stem of the Delaware River, designed to prevent to the extent practicable any water temperature higher than 75° F or daily average water temperature higher than 72° F as measured at Callicoon, Harvard, Woodbourne, and Hale Eddy gaging sites; provided, that no thermal stress release shall be made November 1 to May 31.

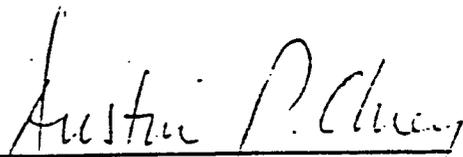
IN WITNESS HEREOF, the undersigned parties, by their duly authorized officials and counsel, have caused this agreement to be duly executed, each intending to become legally bound hereby.

For the State of Delaware

June D. MacArthur
 Richard R. Wier, Jr.
 Attorney General by
 June MacArthur
 Deputy Attorney General

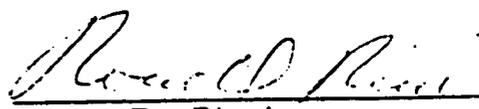
Robert R. Jordan
 Robert R. Jordan
 State Geologist,
 Delaware Geological Survey

For the State of Delaware


Austin P. Olney
Acting Secretary
Department of Natural Resources
and Environmental Control

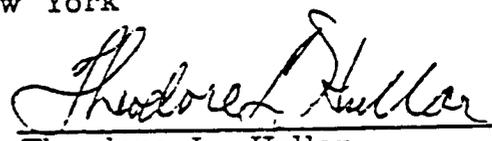
For the State of New Jersey


William F. Hyland
Attorney General by
Morton Goldfein
Deputy Attorney General

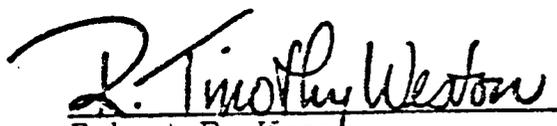

Rocco D. Ricci,
Acting Commissioner
New Jersey Department of
Environmental Protection

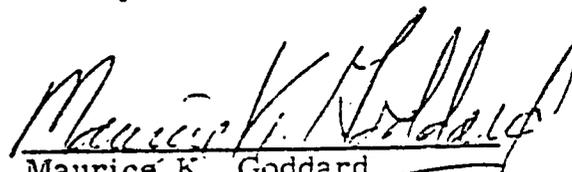
For the State of New York


Louis J. Lefkowitz
Attorney General by
Cyril H. Moore, Jr.
Assistant Attorney General


Theodore L. Hullar
Deputy Commissioner
New York State Department of
Environmental Conservation

For the Commonwealth of Pennsylvania


Robert P. Kane
Attorney General by
R. Timothy Weston
Assistant Attorney General


Maurice K. Goddard
Secretary
Department of Environmental
Resources

For the City of New York

Joseph F. Bruno
Corporation Counsel
W. Bernard Richland

Robert A. Low
Robert A. Low, Administrator
New York City Environmental
Protection Administration

BY:

JOSEPH F. BRUNO

Acting Corporation Counsel

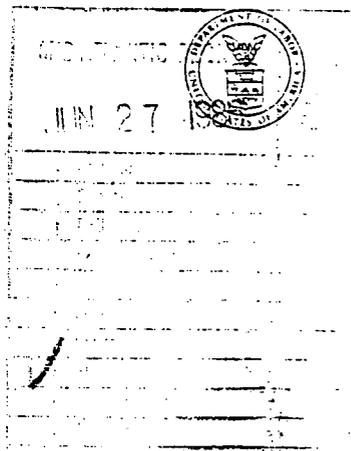
Approval of the Temporary Redistribution of Annual
Excess Release Quantities, as requested,
is hereby given:

Date July 7, 1977

Approved

Francis T. Schaefer
Francis T. Schaefer
Delaware River Master

9.1. Page 67 was changed to reflect this comment.



JUN 23 1986

Mr. James W. Coleman, Jr.
Regional Director, Mid-Atlantic Region
National Park Service
143 S. Third St.
Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

In response to your letter of April 18, 1986, concerning the Draft Environmental Impact Statement (EIS) for the Draft River Management Plan (RMP), Upper Delaware Scenic and Recreational River, we would like to provide the following comments:

- 10.1 1) RMP Pg. 76: St. Joseph's Seminary is not slated for closure due to budget cuts, accordingly, there is no need for adaptive re-use.
- 10.2 2) EIS Pg. 22: Since St. Joseph's Seminary is not slated for closure, there is no need for adaptive reuse as Job Corps information center managed by the National Park Service.
- 10.3 3) EIS Pg. 105, Map 10: The Department of Labor has neither nominated nor determined eligibility of St. Joseph's Seminary for the National Register of Historic Places.

Should you have any questions regarding this matter, please contact Mr. Donald Ward of the Technical Assistance Group, Inc., at (202) 337-3222.

Your cooperation is greatly appreciated.

Sincerely,

STANLEY A. BURGER, Director
Division of Property and
Engineering Management

cc: Mr. Craig Stewart
Conference of Upper Delaware Townships
P.O. Box 41
Fosterdale, N.Y.

10.1. The final RMP was changed to reflect this comment.

10.2. Page 22 of the final EIS is changed to reflect this comment.

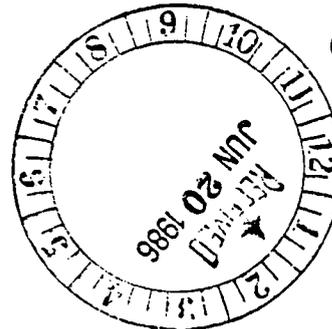
10.3. The final RMP proposes that the Department of Labor consider nominating this structure to the National Register of Historic Places. This is consistent with information on Map 10 in the EIS.



STATE OF NEW YORK
 DEPARTMENT OF AGRICULTURE AND MARKETS
 JOSEPH GERACE, COMMISSIONER
 ALBANY, NEW YORK 12235

ROBERT A. SMITH
 Executive Assistant to the Commissioner

June 19, 1986



(518) 457-3136

James W. Coleman, Jr.
 Regional Director
 Mid-Atlantic Region
 National Park Service
 143 South Third Street
 Philadelphia, PA 19106

Re: Draft River Management Plan (RMP) and
 Draft Environmental Impact Statement
 (DEIS) for the Upper Delaware
 Scenic and Recreational River,
 New York and Pennsylvania

Dear Mr. Coleman:

11.1 A review of the Draft River Management Plan (RMP) and the Draft Environmental Impact Statement (DEIS) for the Upper Delaware Scenic and Recreational River in the states of New York and Pennsylvania has been conducted, in response to notices received by the New York State Agriculture and Markets Commissioner, Joseph Gerace.

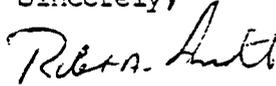
This agency is, clearly, interested in the conservation and protection of the natural resource of agricultural lands and in the continuance of viable farming operations. Our program staff becomes involved in: the agricultural impact assessment and mitigation of projects which seriously impact such resources; and, the administration of the Agricultural District Program where by agricultural districts are created by a locally based, grass roots process and state certification.

Accordingly, Department staff has developed the attached Addendum which provides this agency's comments and recommendations on the Proposed RMP. Their only comment on the Draft Environmental Impact Statement is that the discussion on Agricultural Natural Resources (pages 84-85 of the DEIS) in Chapter II - Affected Environment, adequately addresses farmland resources and agricultural districts, since related comments concerning the RMP are incorporated in the Addendum.

Mr. James W. Coleman, Jr.
Page 2
June 19, 1986

The opportunity to comment and cooperate is appreciated.

Sincerely,



ROBERT A. SMITH
Executive Assistant

RB:mdc

cc: Craig Stewart, Conference of Upper Delaware Townships
Honorable Henry G. Williams, Commissioner, NYSDEC
Charles C. Morrison, Director, Land Resources Planning

Addendum: Draft River Management Plan for the Upper Delaware Scenic and Recreational River, New York and Pennsylvania, January 1986

If the January 1986 Draft River Management Plan (RMP) is adopted as originally written, The Land and Water Use Guidelines would replace the 1981 Land and Water Use Guidelines within the boundary established by the Special Provisions for the Upper Delaware in 1978 (RMP, p. 37).

Basic principles to be implemented as part of the Land and Water Use Guidelines include: to provide for the continuation of agricultural and forestry uses; and to maintain existing patterns of land use and ownership (p. 38). Also, the Executive Summary (p. vii) on the "Land and Water Use Guidelines" states that:

provisions...do not limit the continuation of lawfully existing agricultural, forestry and mining operations, nor do they impose any restrictions, other than the continuation of existing state and local laws, whatsoever on farming.

This is clearly written in the guidelines themselves on page 107.

Therefore, the following recommendations are provided to clarify a few items and to make the plan consistent with existing legal and institutional activities relating to agriculture.

1. It is the Department's position that projects affecting prime agricultural lands* or viable farm operations in Agricultural Districts need to be designated as Class I Projects on pages 40 and 41 of the RMP. Project site selection processes would recognize the importance of encouraging on-going viable agriculture. Also, where project site selection could impact operating farm units a process of agricultural resource assessment and mitigation would occur.

For your information, attachment #1 identifies agricultural districts in and near the river corridor which have been formed at the local level, adopted by the respective county legislatures and certified, after significant public review, by the NYS Commissioner of Agriculture and Markets.

Note "no local government shall exercise any of its powers to enact local laws or ordinances within an agricultural district...which would unreasonably restrict or regulate farm structures or farming practices..." [NYS Agriculture & Markets Law, Article 25AA, Section 305.2].

*Agricultural land resources are prime as identified by the United States Department of Agriculture-Soil Conservation Service

and if ranked within Soil Groups 1-4 of the ten group New York State Land Classification System (1 NYCRR Part 370).

2. The RMP recommends that "the State of New York adopt an Executive Order, signed by the Governor, to ensure that all state management activities, programs, and reviews be conducted in a manner consistent with, and supportive of, the Upper Delaware legislation and the River Management Plan" (p. 44). This Department would certainly want to participate in the preparation of any such document.
3. Consistent with the language stated in the Executive Summary on page iv and discussions on page 50, we suggest that wording in the first sentence in the third full paragraph under National Park Service on page 45, be added as underlined below:

The National Park Service has the authority under this plan to acquire lands in certain instances, on a willing buyer-willing seller basis only, amounting to 130 acres,...

4. Mitigation, addressed on page 47 of the RMP, is an important part of agricultural resource assessment and mitigation. Agricultural lands traditionally have been among those sought for non-agricultural development. However, mitigation, in terms of looking at alternatives for proper site or proper alignment selection, and identifying measures to avoid indirect and direct impacts, can keep viable agriculture thriving.
5. Please note that Notice of Intent requirements under the New York State Agriculture and Markets Law (Article 25AA, Section 305.) may be applicable to discussions on pages 49-50 of the RMP regarding public acquisitions and eminent domain.
6. Agricultural resources as identified within the boundary area should include all prime farmland and viable farm units in agricultural districts certified by the Commissioner of Agriculture and Markets. According to criteria on page 54 only Class I and Class II agricultural lands in agricultural usage under the United States Department of Agriculture - Soil Conservation Service, were identified. While these are extremely valuable farmland resources and are important to protect, additional prime farmlands and economically significant farming units could be converted to non-farm development, because they are not recognized in the plan.

Again, Attachment #1 provides the identification of agricultural districts in or near the planning corridor; districts indicate the location of viable farm operations. Also, prime agricultural land resources is generally defined earlier in the footnote to comment #1 of this Addendum. Specific definitions can be obtained from this Department

at: Capital Plaza, 1 Winners Circle, Albany, NY 12235-0001,
Attn: Division of Rural Resources and Development,
Environmental Resource Unit/(518) 457-2713.

7. The word "will" rather than "should" needs to be used in "Principle D: Provide for the continuation of agricultural and forestry uses" on page 113 of the RMP as follows:

-Where official "Agricultural Districts" or "Agricultural Security Areas" have been created pursuant to New York or Pennsylvania law, towns will [delete "should"] ensure their agricultural zoning districts include all land within such Districts or Security areas and address purposes of these designations...

Other regulations designed to meet this objective will [delete "should"], at a minimum, ensure that existing agricultural activities are not made non-conforming by virtue of regulations adopted to meet these Guidelines... Federal actions will [delete "should"] also be consistent with the stated purposes of these Districts and Areas.

8. In regard to Principle D: Objective 2 on page 113, "intensive livestock operations" needs to be clearly defined (on page 120) to include only those operations which have a very high likelihood of creating a waste disposal/odor problem. Currently, the RMP defines Intensive Livestock Operation as follows:

"the fattening or raising in relative confinement (using feedlots) of beef cattle or hogs or the keeping in cages of 10,000 or more poultry.

This agency believes this definition is too general and could lead to subjective impositions. Therefore, this Department is willing to assist you in mutually reviewing and redefining this term.

Secondly, agricultural practices and-or livestock operations can be modified to resolve a documented waste disposal/odor problem. Through contact with the respective county Soil and Water Conservation and Cooperative Extension staffs, measures can be identified to implement, to correct any serious problem. Therefore, once the term "intensive agricultural operations" has been redefined, the alternative approach under Objective 2 needs to read:

-modifying [delete prohibiting] intensive livestock operations in the river corridor which have been documented to have a waste disposal/odor problem based on consultation with the respective county Soil and Water Conservation District/USDA-Soil Conservation Service and Cooperative Extension staffs.

Making intensive livestock operations conditional uses or enforcing performance standards in agricultural districts would unreasonably restrict or regulate farm structures or farming practices. This would directly conflict with the Agriculture and Markets Law and is not acceptable. Therefore, a requirement for a "conditional use review" is in appropriate.

11.1. No changes in the EIS are required.

11.2. No response required.

11.3. No changes were made in the final Plan in response to this comment.

11.4., 11.6., and 11.7. No response required.

11.5. and 11.8. No changes were made in the final plan in response to these comments.

11.9. and 11.11. No changes were made in the Plan or Guidelines in response to these comments.

11.10. Changes were made in the final Plan and Guidelines in response to this and similar comments.



STATE OF NEW YORK
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-0001

HENRY G. WILLIAMS
COMMISSIONER

OCT 6 1986

Dear Mr. Coleman:

12.1 I am pleased to transmit herewith our comments on the January 1986 draft of the Upper Delaware River Management Plan and its associated DEIS, dated April 18, 1986. For each document we are submitting General Comments and Specific Comments, the former covering topics of major interest and the latter being keyed to specific pages in the text. These are enclosed with this letter.

We want to extend our congratulations to the National Park Service and the Conference of Upper Delaware Townships for producing two very complete, comprehensive and well-written documents. Considering the difficulties encountered throughout the planning process, they stand as a rather remarkable achievement. Their quality reflects well on both organizations.

The legislation for the Upper Delaware River is uniquely progressive. The cooperative intergovernmental approach it embodies is a model not only for river conservation but for resource conservation generally. Much credit is due to you, your staff, the members of the Conference of Upper Delaware Townships and the consultants for your perseverance, persistence and foresight in moving the plan to completion.

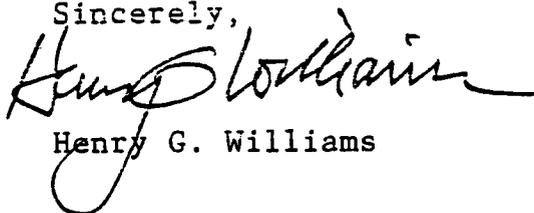
As you are aware from our comments throughout the planning process, we are most supportive of the plan as a means of implementing the 1978 legislation and have been pleased to participate in its development. We believe that the draft plan is consistent with the provisions and principles of the federal Wild and Scenic Rivers Act as amended in 1978 for the Upper Delaware River. We are pleased to be able to give it our endorsement, except as qualified by the enclosed comments.

12.2 We understand that the next step in the review process involves preparing a revised draft of the plan, incorporating the comments received on the present (January, 1986) draft plan, which then will be transmitted to the local governing body of each town and township and to the affected states, the Delaware River Basin Commission and the Citizen's Advisory Council for final review before submittal to the Secretary of the Interior for approval. Subsequently, it will be submitted by the Secretary to the governors of New York and Pennsylvania as required by Section 704(c)(1) of the federal Wild and Scenic Rivers Act.

Please let us know if our understanding of the steps in this review process is correct.

We look forward to continuing our working relationship with you during implementation of the plan.

Sincerely,

A handwritten signature in cursive script, appearing to read "Henry G. Williams".

Henry G. Williams

Enclosures

Mr. James W. Coleman, Jr.
Regional Director
National Park Service
143 South Third Street
Philadelphia, PA 19106

GENERAL COMMENTS

Boundaries

12.3 Although we understand fully the context within which the modified boundaries have been prepared, we continue to be greatly concerned that the proposed plan would reduce the existing boundary, established by law in 1978, from 86,000 acres to 56,000 acres. This would sharply and excessively curtail the area that is subject to the rather modest land use control and resource management program that is proposed in the plan. We use the term "modest" advisedly, because the land use guidelines are to be implemented voluntarily by the local governments and the rest of the proposed program other than that for the 130-acre acquisition element depends entirely upon coordination of existing legal authority and programs. We question whether this severe cutback meets the requirements and intent of the law. While the 1978 boundary may be "modified" in the process of developing the management plan we believe that a reduction of this magnitude cannot be interpreted as a refinement and goes so far as to constitute a complete refutation of the 1978 boundary. It infers, wrongly, that the 1978 boundary does not meet the criteria of the Rivers Act, as amended.

Regardless, whatever modifications are made, they must meet the test of conformance with the resource protection requirements of the act in a valleywide context, which is the guiding concept behind the "ridge-to-ridge" principle.

We contend that the valleywide protection concept has been largely disregarded in drawing the 56,000-acre boundary. Basically, the technique of identifying the ridge tops closest to the river and connecting them to form a lateral boundary does not necessarily satisfy the requirements for valleywide protection of the varied resources - scenic, fish and wildlife, recreational, etc. - whose protection is required under the terms of the act. The technique should be tailored to meet these requirements. Instead, the technique has been allowed to determine the end result.

We also believe that as a result of widespread public misunderstanding about the effect of the federal Rivers Act and the Upper Delaware amendment, areas of the corridor which should be protected in accordance with the valleywide protection concept have been sacrificed to popular sentiment without benefit of adequate supporting data. In fact, no new data has been developed since the former Planning Team proposed a 79,000-acre boundary in the 1982 draft plan and none exists which would justify the drastic reduction that is presently proposed. Further, if additional data on resource conditions were available, it might support a proposal for expansion of the boundary. For example, a systematic study of the scenic resources of the valley has never been done and if it were done in the context of the valleywide protection concept, it is likely that it would

justify expansion of the boundary rather than contraction. Also, the proposed boundary does not incorporate the vital fish spawning areas of the Upper Delaware, as is discussed in our more specific comments. In this case data supporting boundary expansion is available, but it has been largely ignored.

The draft plan now outlines a boundary amendment process. In view of the fact that there is widespread dissatisfaction with the proposed 56,000-acre boundary, we recommend that the present 85,000-acre boundary should be retained until further studies can be done to provide resource information to adequately justify its expansion or contraction, consistent with the criteria and purposes of the Rivers act and the adopted valleywide "ridge-to-ridge" protection concept.

Please refer to our other specific comments on the boundary section of the plan, as set forth below.

Hydroelectric Facilities

- 12.4 Hydroelectric generating projects now being proposed for construction and operation on the major tributaries of the Upper Delaware are not described at all in the plan. This is an oversight that should be corrected because these projects could have a major impact on the resource values which afford the basis for designation of the river. The plan contains only one sentence, on pages 58 and 59, which refers to the modest protection afforded by the federal Wild and Scenic Rivers Act against the potential adverse impacts of these projects on water quantity and quality, fisheries, scenic values, etc. and this reference is rather oblique.

These projects and the measures that are available to protect the resources against adverse impacts should be described thoroughly. In the case of the Mongaup River, these measures include a landward extension of the lateral boundary of the corridor to encompass the Special Fishing Regulation Area.

Council Staffing

- 12.5 We believe strongly that the Upper Delaware Management Council must have a well-qualified professional staff of sufficient size to do the work that is needed by the Council to carry out its assignment. This need should be described pointedly and fully in the main text of the plan, rather than being mentioned only obliquely in the appendix. Also, it should be made clear that this need for an "inhouse" professional staff capability is a separate matter from that of making effective use of the county planners and the NPS, DRBC, DEC and DER staff assigned by the member agencies of the UDMC. These "outside" professionals will be available to a limited extent to coordinate agency programs and interests with those of the Council. In order to make optimum use of this outside staff support for

Upper Delaware work, the Council's own staff will have to provide leadership and coordination.

DEC Role and Funding

- 12.6 DEC will assign one staff person from the New Paltz office to work in support of its representative on the Council. This person also will work with the Council's staff and with the professional staff from other involved agencies. However, it should be understood that if this work includes more than two or three meetings a month or if it requires other major substantive work which requires significant blocks of time, it will not be feasible to participate except on a contract basis. If contract work is involved, DEC may subcontract or may decide that the best result can be obtained by hiring a staff person full time. In the latter case, there would have to be some assurance that federal funds will be forthcoming for a period of two or three years at least.

In the past we have made it clear that in the event that we do hire someone to do this work, the federal funding level must completely cover the salary and fringe benefits for a moderately experienced person, with provision for meeting the costs of annual salary increases resulting from salary scale increments and annual inflationary raises mandated by the State government. We do not have the option of matching federal funds with State funds to support a staff position for these purposes.

Identification of Existing Legal Authority and Programs

- 12.7 One of the main principles in the 1978 legislation is that the various levels of government are to exercise their existing legal authority and programs for resource management and land use control fully and in a coordinated manner. However, the plan does not describe or list these authorities and programs in a comprehensive manner. We recommend that the major authorities and programs should be listed comprehensively in an appendix to the plan, despite the fact that some major authorities and programs are described in the separate DEIS.

General Guidelines

- 12.8 In some ways the proposed General Guidelines represent an improvement over the 1981 Guidelines. However, while they offer greater flexibility to local governments in their development of local laws and ordinances that are consistent with the Guidelines, they do not provide an adequate basis for the Council's evaluation of the consistency of local plans and land use controls. There is little firm ground in the form of specific standards on which to base such judgements because a range of alternatives is provided for accomplishing each

objective. We recommend incorporating more specific singular standards. Where alternative approaches or standards are recommended, the preferred alternative should be indicated. Also, it should be stated in the plan that the Council subsequently will adopt procedures and criteria for conducting their evaluation of local plans and laws/ordinances.

State Reservoir Releases Program

- 12.9 We strongly support the statement on page 60 to the effect that the states and DRBC should revise existing flow regimes so as to provide additional enhancement during good hydrologic periods and needed protection of aquatic ecosystems during drought warning periods and under drought storage conditions. However, we also believe that greater recognition should be given to the vital role of the New York State Reservoir Releases Program in that it is already achieving improved conditions and it provides the major basis for making further improvements. This important program, without which there might not be a designated National River, is explained not at all and is mentioned only once in passing. We urge that this oversight be corrected.

Fishing and Canoeing Conflicts

- 12.10 Fishing and canoeing conflicts are treated cursorily and without making any explicit recommendations. These conflicts are becoming increasingly serious and should be addressed more adequately in the plan.

Plan/DEIS Relationship

- 12.11 The comments we have made on the plan also apply in corresponding sections of the DEIS and corrections and changes should be made accordingly.

Prepared by:

NYS Department of Environmental
Conservation

Upper Delaware Draft Management Plan

SPECIFIC COMMENTS

Page iii

- 12.12 On page iii it is suggested that only 130 acres can be acquired. The legal acquisition ceiling is 1,450 acres. Insert "out of the legally authorized amount of 1,450 acres" after 130 acres.

Page iv

- 12.13 Again, on this page and in several other places in the text of the plan there is a strong inference that the land acquisition limit of 1,450 acres, as established by law, is being changed by the plan to 130 acres. Part of the problem lies in the fact that often no reference is made to the 1,450 acres when the 130 acres is discussed and, therefore, the discussion is out of context. This is misleading. The 1,450 acres is still the legal limit, despite the fact that the plan recommends only 130 acres.

Page v, Paragraph 2

- 12.14 It is misleading to state that the Council will have the primary responsibility for implementation of the plan. The Council will be a coordinating body with advisory power, only. Implementation depends upon the exercise of the existing authority of the federal, state and local governments. This should say "... responsibility for coordinating and overseeing the implementation of the plan."

Page 2, Paragraph 5

- 12.15 Whenever it is employed as an adjective, "coldwater" should be one word. This correction should be made on this page and throughout the plan.

Page 3, Paragraph 3

- 12.16 It is important to qualify the list of the Delaware tributaries in New York that have a "direct relationship to the values of the designated river area," by inserting right after the phrase:

"All New York tributaries that are currently classified C(t) or higher, or are so reclassified in the future, are

recognized as having this direct relationship" Then say:
 "The major tributaries now in this category are:" Delete
 the present lead-in sentence.

Page 4, Paragraph 4

12.17 To be more accurate, this should read as follows:

"The New York Natural Heritage Program is conducting a two year study of rare plants and exemplary natural communities within the proposed park boundaries on the New York side of the Upper Delaware River. The final report for this study will be available in February, 1987. Preliminary findings indicate the presence of four plant species considered rare in New York: Great St. John's-wort (Hypericum ascyron), Prostrate Sand Cherry (Prunus pumila var. depressa), River Birch (Betula nigra), and Sand Plain Gerardia (Agalinis setacea). The study will identify human use impacts within the proposed park boundaries."

Page 5, Paragraph 1

12.18 "Northeastern" should not be capitalized.

"12,000" should be changed to "60,000".

"annual" should be replaced by "1982".

The source of these statistics (Sheppard, 1983) should be properly cited and also be included in the bibliography as follows:

"Sheppard, J. D. 1983. New York Reservoir Releases Monitoring and Evaluation Program on the Delaware River - A Summary Report. New York State Department of Environmental Conservation, Division of Fish and Wildlife, Bureau of Environmental Protection, Albany, New York. Technical Report 83-5. 139 pages plus two appendices."

Page 5, Paragraph 4

12.19 The source of these statistics (Sheppard, 1983) should be properly cited.

Pages 12-13, Goals

12.20 A strong statement for protection of natural diversity should be added, as follows:

"Protect the natural diversity of the river corridor, including its rare and endangers plant and animal species and rare natural communities."

Page 16, Top

Add "5" as follows:

- 12.21 "5. With the Federal Energy Regulatory Commission, for the licensing activities associated with the construction and operation of hydropower generating facilities."

Page 27, Item 4

- 12.22 Preparation of local comprehensive plans should be included and local laws and ordinances should be added to "techniques."

Page 30

- 12.23 The basis for participation in the Upper Delaware planning and management process by the State of New York obviously is much more deeply rooted in the law than one provision of the State Rivers Act. It should not be inferred that the State would not have the right to participate if it were not for the fact that the State Rivers Act was passed. This right goes to the heart of the federal/State relationship that is circumscribed by the United States Constitution. The State constitution and numerous State laws describe the State's responsibilities for management of the resources of the Upper Delaware River. The local governments, of course, were created by the State and the authority they have for land use control and resource management has been delegated by the State. The Department of Environmental Conservation is the agent of the State in these matters. This statement in the text should be qualified to state that: "In part, the State of New York as represented by the Department of Environmental Conservation, etc."

Under item 2, delete "General Assembly" and substitute "the Governor and the Legislature." The budget process involves both the Executive Branch and the legislative branch, the latter being comprised of the Assembly and the Senate. Further, the State does not have a statewide program of financial assistance for planning. The only such program is for municipalities in the Adirondack Park, through the Adirondack Park Agency. It is highly unlikely that such a program could be instituted for the eight towns along the Delaware River. An amendment to the State Coastal Management and Waterfront Revitalization Act was passed in 1986 which extends technical and financial aid for land use and resource planning to certain inland water bodies,

including the Upper Delaware River. No appropriation was made with the act, but that may be forthcoming in the future. The program is administered by the Department of State. This prospective source of funds notwithstanding, we believe that funding to implement the federal law establishing the Upper Delaware National River in a timely manner is most appropriately provided by the federal government.

Page 31, Item 6

12.24 Add "protection of water" before "wetland and floodplain laws."

Page 54, Item 9

12.25 This item should be deleted because "important fishery areas" are not included within the boundary as has been recommended by DEC for the past three years. The fish spawning areas up to the first barrier dam, which are integral to maintenance of the fishery in the mainstem of the Delaware River, have been excluded. This is contrary to the requirements of the federal Wild and Scenic Rivers Act. The exclusion is particularly damaging in the case of the Mongaup River which has been designated as a Special Fishing Regulation Area almost all the way to the power plant at the end of the old Orange and Rockland penstock that is now being rebuilt.

Page 56

12.26 It should be stated that the river was classified into Scenic and Recreational segments based on the land use and river conditions and landscape qualities that existed at the time of classification (mid-1970's) and that the corridor having been so classified it must now be managed to perpetuate these conditions.

Page 58, Paragraph 3

12.27 The beginning of this paragraph should be modified to reflect the fact that the Montague flow objective of 1,750 cfs can be reduced when storage in the New York City Delaware Reservoirs drops into the drought warning or lower stages. The Delaware River Basin Commission (DRBC) through negotiation among its members and New York City arrived at an agreement in 1983 (Good Faith Agreement) establishing the storage rule curves and the reduction in Montague flow objectives and diversions to New York City as a conservation measure during dry periods.

The middle of this paragraph should be revised to read as follows:

"... including portions of the Upper Delaware. To protect the upper reaches, conservation reservoir releases were incorporated into the Decree in the 1960s and subsequently modified in the 1980s to provide additional protection and enhancement. However, on some occasions, particularly during drought, the significant reduction in releases is accompanied by rapid fluctuations in water temperature which continue to adversely affect the aquatic ecosystems in the designated area ...".

Page 58, Paragraph 4

Revise paragraph to read as follows:

- 12.28 "Water quality in the Upper Delaware River is uniformly good to excellent except during periods of below normal reservoir storage ...".

Page 59, Water Resources Management Objectives

- 12.29 We endorse the nationally recognized studies and consequent recommendations made on reservoir releases to protect aquatic ecosystems. We suggest strengthening this element further by adding to Objective 1 a statement on the importance of maintaining natural river flows, including flooding and low water periods, to perpetuate the unique riparian communities found along the Upper Delaware River. These communities depend on natural fluvial processes, such as flooding, scouring and the deposition of silt and sand for their formation and maintenance. Flow regulation that would "control" these natural processes could lead to the elimination of these communities.

Page 60, Item 1

- 12.30 Under Intergovernmental Responsibilities, it is stated that "... the states and the Delaware River Basin Commission should consider the possible revision of existing flow regimes to provide additional enhancement..." The only flow regime program New York State regulates within its portion of the Upper Delaware is the Reservoir Releases Program. Any changes in the flow regime of this program would necessitate meeting all the procedural requirements associated with developing new regulations.

Page 60, Item 5

- 12.31 Considering the importance of the Reservoir Releases Program to flow maintenance in the designated national river, it is a major omission not to describe it adequately in this section

of the plan. The only place it receives mention is in this sentence and then it is given only passing reference. Also, the second part of the sentence should be changed to read: "... in recent years the State has appropriated as much as \$500,000 a year to the City of New York for these releases." Although there have been two such appropriations, they were used to pay for revenue losses over several years of operation. In other years the appropriation was less.

Page 63, Paragraph 7

- 12.32 Responsibility #2 should be revised to read "The Council will keep itself informed about activities by the Delaware River Basin Fish and Wildlife Management Cooperative or any appropriate subgroup thereof."

Page 64, Item 1, Under Pennsylvania and New York

- 12.33 The phrase "other fishery" should be changed to read "other fish."

Page 64, Item 4, Under "Intergovernmental Responsibilities"

- 12.34 The recommendation that "A subgroup of the existing Delaware River Basin Fish and Wildlife Management Cooperative should be established to focus on fishery matters of the Upper Delaware from Hancock to Port Jervis" is inappropriate and should be deleted.

The Cooperative properly exists to deal with interstate fishery issues of interest to the four member states as well as the United States Fish and Wildlife Service and the National Marine Fisheries Service. Only New York and Pennsylvania are involved with the more local fishery concerns regarding the mainstem of the Delaware from Hancock to Port Jervis. Representatives from the two states already meet regularly to focus on these issues.

Page 81, Under "Fishing Access Sites"

- 12.35 It is stated that, "The National Park Service will provide informal public access sites for shoreline fishing ..." in three areas. The proposed areas are all on the Pennsylvania side of the river. What are the criteria for selecting such sites? Are others anticipated? How does the New York side fit in?

Pages 89-90

- 12.36 The Water Use Program, Goal 4 (page 89) and Land and Water Use Guidelines, Objective 5 (page 117) relate to minimizing conflicts between user groups. An important strategy for minimizing such conflict would be to strictly regulate commercial canoe activity between Hancock and Callicoon.

Page 95, Goal 9, Objective A

- 12.37 A media campaign directed at the New York metropolitan area is not a good idea. It is likely to trigger heavy use of the resource and in that respect it is in conflict with a basic premise of the plan, i.e., that its purpose is to protect the resources, not to take any action that would encourage more use. Regardless of rules and regulations, the inherent qualities that make this river attractive will be compromised by some level of use that turns out to be excessive. Suggested information should be made available along the corridor and in brochure form as well. It should not be necessary to "sell" the Upper Delaware in a large media market to protect it from abuse or overuse.

Page 113

- 12.38 The forestry practices are all right. However, it would have been useful to mention the New York State Best Management Practices and the Cooperative Consulting Forester and Timber Harvesting programs.

The plan is silent on the matter of tree defoliation from insects and the action that landowners and local governments should take when tree resources are threatened with this.

Page 115

- 12.39 We believe that not all of the uses in these tables are appropriate to the particular river classes. For example, clustered townhouses may be all right in Scenic segments but garden apartments (mentioned twice on the list) are not, nor are oil/gas fields and pipelines. Why are densities listed for townhouses under Recreational but not under Scenic? Similarly, garden apartments should be removed from the Recreational category and minor surface mining should be deleted from hamlets as an allowable use.

To provide the guidance which the General Guidelines are designed to do, there should be a thorough discussion in the introduction to the Guidelines of the distinction between "Scenic" and "Recreational" with respect to allowable uses, as required by the Wild and Scenic Rivers Act. There is nothing in the

text of the Guidelines to explain this table and the principles behind it.

Pages 120-121

- 12.40 Minor mining operations could be defined more simply by stating that they are noncommercial and municipal uses, rather than defining them as being several different uses.

A two-acre size distinction between minor and major operations is all right, but it doesn't adequately cover most situations. We recommend consideration of a tonnage threshold, such as exists in the New York State Environmental Conservation Law (1,000 tons/year). Also, no provision is made to regulate expansion of existing operations.

Pages 129 and 132

- 12.41 On page 129 it is proposed that NPS have a \$500,000 budget for planning. Considering that the Council is to do most of the planning, how would NPS' \$500,000 be used and how does it relate to the \$500,000 proposed budget for the Council?

The table on page 132 states that New York will provide \$100,000 for the operation of the Council. We do not agree with that recommendation. The State already is making a substantial in-kind services contribution to the management of the resources and facilities of the Upper Delaware through its ongoing programs. By agreeing to a coordinated land use management and limited acquisition program for a federally-designated river, the State and its local governments have saved the federal government and the taxpayers-at-large substantial acquisition and operations costs which otherwise may have been associated with this area. The federal government should pay the entire cost of the operation of the Council.

The staffing plan for the Council needs further review and discussion. The size of the staff probably is about right with respect to the ongoing work to be performed by the Council and we strongly support the need for a well-qualified professional staff to back up the work of the Council. However, it is questionable that a full time lawyer would be needed. Legal services should be obtained as needed from member agencies and on a retainer and/or contract basis. It also is doubtful that two engineers would be needed.

The Council's staff will be working with various professionals in state, federal and county agencies. The 1983 draft plan recommended that some of these professionals, ie., the ones who are most directly involved in Upper Delaware work from NYS-DEC, PA-DER, DRBC, NPS and county planning, meet on a regular basis with the Council's project leader (staff director)

to ensure effective coordination between the involved agencies and the Council. The 1983 draft plan recommended that this group should be established formally, as a Technical Advisory Group (TAG). This is still a sound idea, one which should be incorporated in the present draft of the plan. It also should be made clear, as discussed under General Comments, that the role of this body of professionals in helping the Council accomplish its program is quite different than that of the Council's staff. This group would contribute primarily by focusing and coordinating the programs and expertise of state and federal agencies. Some contract work may be performed by the members of the group, particularly the county planning agencies.

Prepared by:

NYS Department of Environmental
Conservation

DEIS for the Upper Delaware River Plan

GENERAL COMMENTS

Overall Comment

- 12.42 In general, this is a very well balanced, complete, well-researched and well-written document. Illustrations are excellent, well-presented and helpful. However, it is overly optimistic about the impacts that will occur under the various alternatives and similarly overly optimistic that most of the towns will cooperate by implementing adequate local land use plans and controls.

Institutional Arrangements

- 12.43 There is no mention in the DEIS of alternatives to the UDMC, other than a more solitary NPS role. Why isn't the alternative of a bistate commission mentioned? Or a regional entity under the aegis of DRBC? Or an entity similar to the UDMC, but with a different membership arrangement?

All of these options and others were discussed by the Planning Team and with the public in 1981 and 1982 and were brought into focus in a paper prepared by the Legal Authorities and Institutional Arrangements Committee of the Planning Team. They were discussed in the 1982 draft plan and should be presented in the 1986 draft plan. The committee paper should be listed in the bibliography.

Plan to EIS Relationship

- 12.44 The Final EIS should reflect the Department of Environmental Conservation's review comments on the January 1986 draft river management plan for the Upper Delaware National River. We note that several errors in this DEIS are carried over from the draft management plan. Important changes in the draft river management plan as a result of the public review process should be incorporated into the FEIS, as appropriate.

Mixing Alternatives

- 12.45 There should be some statement in the DEIS about the opportunity to mix and match subalternatives. For example, it would be feasible to accept all elements of Alternative 1 except the Boundaries element, the net effect of which would be to substitute that element from Alternative 2 or 3... or incorporate a new element."

Boundaries

- 12.46 The proposed management area boundaries should incorporate those tributary streams which are extremely important as salmonid spawning and nursery areas. See Map 8. This is particularly important in the headwater areas of the tributaries and their watersheds where high gradients combined with environmental disturbances would most likely result in the erosion and transport of fines to the lower gradient section downstream, there to impact on spawning success and nursery potential.

An additional comment is set forth above, under Mixing Alternatives. Also, see Boundaries comments on the plan.

NYS/Reservoir Releases Program

- 12.47 The DEIS omits recognition of the need to revise the reservoir releases, as was recognized on page 59 of the plan. The DEIS should be revised to conform to this stated objective, in several sections, including Flow Management (pages 65-68).

Use Conflicts

- 12.48 Resolution of use conflicts, particularly those between anglers and canoeists, should be explicitly addressed. Overuse which impacts on participants in one's own user group or in another, conflicting user group, must be considered to the point that resolution strategies are described and the ultimate authority for addressing these problems is identified.

Chapter I

- 12.49 The discussion in this chapter is too abbreviated. Either a reference to the discussion in Chapter V should be given, or better yet, incorporate a few sentences summarizing the reasoning in Chapter V.

Chapter II

- 12.50 Same comment as for Chapter I. The reader has no basis for understanding merits of three alternatives or why recommendations are as given. A topographic map should be presented prior to, as an overlay to, or as an overprint to Map 2. Provide discussion of why tributary streams are not included in protection. Provide basis for belief in this and subsequent chapters that only 12 towns of 15 will cooperate.

Chapter III

- 12.51 Sections 9 and 10, page 76 et seq. Although this DEIS is and should be in the first instance a discussion of recreation

and aesthetic values, the section on Vegetation and c. 10 on Wildlife are insufficiently developed. Section 9 should relate plant communities to physiographic features and other pervasive influences already elaborated. Please characterize ecological importance of each cover type, sensitivity/resiliency to impacts, and other characteristics (see comment on pages 199-200). The Wildlife section should build on the Vegetation section. Plant communities/cover types should be discussed as habitats for certain species. Based on the present text, the reader may look for turkey and grouse along the floodplain and kingfishers on the ridgetops. The ecological basis for various species being present should be provided. The general abundance and susceptibility to both river-related and developmental impacts and to increased hunting pressure if hunters are attracted in greater numbers should be characterized. These discussions should be modeled after section III.c.8 which is thorough (see comment on pages 199-200).

Chapter IV

- 12.52 A major oversight in this chapter is its failure to deal with impacts on wildlife. Such discussion should be incorporated here.

Prepared by:

NYS Department of Environmental
Conservation

DEIS for the Upper Delaware River Plan

SPECIFIC COMMENTS

Page 2, Paragraph 2

- 12.53 Reword the third sentence to "The Upper Delaware is currently one of only two natural shad rivers (the Hudson River is the other) from Maine ..."

Page 12, Under Sport Fishery Management Actions

Reference to fishery habitat should be to fish habitat.

- 12.54 Here and elsewhere in the DEIS, significant fisheries are said to include trout, bass and shad. Walleye also provide a significant fishery since they are found in some abundance throughout the river, and are a species which are highly sought after by anglers.

Pages 12, 13 and elsewhere

- 12.55 Certain actions within the river corridor are discussed in relation to potential impacts on "fishery" (fish) habitat. Other actions that impact fish habitat or the fishery include reservoir releases and competition between anglers and boaters.

Page 13, (f)

- 12.56 Reword as follows: "... Commission, and joint state regulation and management of fishery resources including purchase of fishing access."

Page 27, I, Sport Fishery Management Actions, Paragraph 1

- 12.57 The first "fisheries" should be fishes and the second "fisheries" should be fish.

Page 28, (d)

- 12.58 Reword as follows: "... research, and joint state regulation and management of fishery resources including purchase of fishing access."

Page 35, Sport Fishery Management Actions, Paragraph 1

12.59 "Fishery" habitat should be fish habitat.

Page 36, (f)

12.60 Reword as indicated in comment for page 28.

Page 61

12.61 Under Wetlands discussion it should be made clear that DEC has tentative maps for freshwater wetlands 12.4 acres and larger as well as wetlands inventory maps for smaller wetlands.

Page 66

12.62 In the last sentence of the third paragraph, the statement "... New York must release enough water ... to keep the salt front downstream ..." is misleading. The requirement for releases from the New York City reservoirs is to meet the Montague flow objective. The Montague flow consists of natural runoff and reservoir releases. Combined with releases from lower basin reservoirs, the total flow impacts the salt front. This operation was agreed to by the parties of the "Good Faith" agreement and is not a part of the Supreme Court Decree of 1954.

Page 68

12.63 At the top of the page, these two sentences should be revised, as follows: "The State of New York has authorized a program of releases from New York City's reservoirs to augment flows in good hydrologic times and provide a more consistent flow in the Upper Delaware River for conservation purposes. This program is administered by the State Department of Environmental Conservation. The releases regime operates within the flow requirements of the Supreme Court Decree and it was adopted by DRBC on an experimental basis in 1977. In 1983, the members of DRBC with the City of New York adopted the program unanimously as a part of the Good Faith Agreement.

Page 77

12.64 In the second paragraph reword as follows: "... by initial woody invaders used by pitch pine. Many of the woody species provide browse for deer."

Page 78

12.65 In the first paragraph under Wildlife clarify the third sentence. Are the authors saying that the whitetailed deer

is the principal wildlife resource? In what way - recreationally, financially, ecologically, aesthetically?

In the second paragraph under Wildlife change the third and fourth sentences as follows: "... varying hare and woodchuck. New York's ... for the timber rattlesnake, a species classified as threatened in that state."

Page 79

12.66 In the continuation of last paragraph on page 78, mention should be made that the bald eagle is not only a migrant along the river but also spends its winters along the river in considerable numbers.

The second full paragraph should be modified to say that there are no federally-listed threatened or endangered species that live year-around or that breed in the area. The wording in the DEIS is not explicit enough to be clear.

Pages 80-83 and Map 8

12.67 The section on Fisheries requires the following clarifications:

- a. Although bass are the dominant species downstream of Callicoon, they also are present (in generally reduced numbers) between Callicoon and Hancock.
- b. Virtually all of the permanent tributaries between Callicoon and Hancock provide spawning habitat for brown and rainbow trout. These are the only sources of recruitment of wild trout to the main river.
- c. The first sentence of this section refers to balanced biological communities, then the other components of the aquatic communities, except game fish, are never again mentioned. Species of interest to trophic sufficiencies should be described and related to varying conditions. Relate to hydrological characteristics already presented, especially pools and riffles.
- d. This section should discuss whether and how tributaries and headwaters and their fish populations are protected, and if not, why not? Later in Chapter IV, impacts (or lack of impacts) from not protecting these streams should be discussed.
- e. This section does not reflect the level of knowledge, modeling, planning or strength of recommendations made earlier. It must enlarge on the reservoir releases studies and resultant agreements. It should discuss the significant role these studies played in developing

the Instream Flow Analysis methodologies, and the conclusions that were reached.

Page 80

- 12.68 In the second paragraph change second and third sentences as follows: "Many major rivers ... pollution. The Delaware is one exception ..." (Note: The Hudson River has a large number of fish that spawn below the federal dam at Troy. The Connecticut River has a large population and major upstream spawning and nursery areas have been made accessible through an aggressive and effective fish passage program.)

Map 8

- 12.69 "Fishery" habitats should be "Fish" habitats. This map provides a firm basis for including tributary spawning areas within the boundary.

Page 82

- 12.70 In the second paragraph: Are any fish species listed as endangered or threatened by the New York DEC found in this reach of the Delaware River?

Page 83

- 12.71a Under Section 12, Air Quality, Line 2 states which photochemical oxidants are being referenced, their sources and amounts, and whether they are increasing or decreasing.
- 12.71b Under Section 13, Agriculture, first paragraph, the use of the word restricted means "controlling" or "limited." Requires clarification.

Page 85

- 12.72a In the first paragraph, continue the last sentence as follows: "... the river corridor and none are expected because such a small percentage of the corridor is agricultural land."
- 12.72b In the second paragraph, although only a small area in the corridor is highly erodable, 5-6 tons/acre/year is a large amount. Is this due to normal stream bank loss or land development practices? If the latter, what will be done?

Page 86

- 12.73 Under Recreational Resources and Facilities, a small table ranking each use by relative intensity should be included.

Page 92

- 12.74 In the fourth paragraph, "12,000" should be changed to "60,000."

Page 93

- 12.75a In the first paragraph, replace omega symbol with a dollar sign before "5,000,000."
- 12.75b In the section on hunting, the amount of hunting in trips or user days, etc. should be quantified, as was done in the preceding section on fishing.
- 12.75c The "river area" is not recognized by biologists as an excellent hunting area. The uplands adjacent to the river provide good hunting opportunity for some species. Waterfowl hunting on the river (at least in New York) is marginal at best.
- 12.75d In addition, there is more up-to-date deer and turkey harvest data available than 1983 (deer) and 1984 (spring turkey). These can be obtained either from Delmar or the regional office in New Paltz.
- 12.75e In the last paragraph and its continuation on page 94, are PGC and DEC lands, the ones shown on Map 9? If not, add to Map 9.
- 12.75f In the last paragraph, the correct names are Orange and Rockland Utilities, Inc. and the Greater New York Council of Boy Scouts. Also, I don't know what is meant by "five areas." The two agreements open two areas for public hunting.

Page 94

- 12.76 In the last paragraph, it is noted here that "... conflicts between uses did not arise as a major issue or problem." The basis for this statement is unclear; many fishermen express annoyance at least with the armada of boaters present at various times and places in the river.

Page 95

- 12.77 In the first paragraph, lines 6-7 should be rephrased as follows:

"Estimates of annual visitor use then were calculated (Table III.5 and 6). These estimates have unknown large errors and should be taken as conservative indices of usage." Why are non-river users not estimated by some technique? At least their presence should be acknowledged.

Page 96

12.78 Table III.5 does not use the correct figures for angler days. The figures should be taken from Table 26 of the referenced DEC report.

12.79 Retitle Table III.6 the table to: "Estimated Visitation to the Upper Delaware River." Retitle left table from "actual" (they are not) to "Total" or similar word. The figure of 225,959, even if real, appears to be anomalous and high. It should not be used in calculations of trends. For this reason, we suggest recording page 97, line 2.

Pages 125 et seq.

12.80 This material discusses potential impacts to shad, trout, and bass. This section could be strengthened by including a discussion of the greater potential for major impacts to the trout population. Since wild trout are completely dependent on a finite number of relatively small spawning tributaries, they are at greater risk to changes in land use than are other species with riverwide spawning capability.

Page 126

12.81 In the first paragraph, all New York streams classified as C(t) or higher should be cited as being important to the fisheries of the mainstem.

Page 130

12.82 Much of the trout habitat is outside of this corridor. There should be a discussion of whether or not there may be likely impacts, especially from residential development and forest clearing along tributaries. Repeat this or cite it on page 180.

Page 131

12.83 In the first paragraph, this conclusion fails to take into consideration the impact on the quality of the trout fisheries due to conflicts between canoers and anglers. One aspect of the fishery is the quality of the experience. This quality

can be absent even in the presence of a good population of trout and good trout habitat. This statement also applies to the conclusion for the Upper Delaware bass fisheries (page 133), the Upper Delaware shad fishery (page 129), for Alternative 2 (pages 163, 164 and 166) and Alternative 3 (pages 179, 181 and 183).

Page 135

- 12.84 In the first paragraph, the second sentence is misleading or incorrect. Soil percolation tests help on clay or rock. This area has very sandy soil and presumably a high percolation rate.

Page 139

- 12.85 In the last paragraph, this is a prime example of wishful thinking regarding town cooperation. Here and in other sections of the DEIS, a basis for the belief that 12 towns will cooperate and 3 will not cooperate should be provided.

Pages 146-147

- 12.86 The NPS user statistics indicating that, "... fishing accounted for about six percent of the total visitation between 1980-1985," and the reported fishing pressure for 1983 and 1985, may be misleading. Much fishing is done in the context of trips with a primary purpose other than fishing.

Table at top of page 147 - why are the "estimated numbers of anglers" for 1983 and 1985 "actual" here, and "estimated" in Table III.5? This discrepancy should be reconciled.

Page 148

- 12.87 In the second paragraph, after the first sentence, add the following statement: "Other fishing access should be developed upriver as needed."

Page 150

- 12.88 In the third paragraph the words "water courtesy" should be added after "boating techniques" in the last sentence.

Page 188

- 12.89 In the second paragraph, the term "negligible impacts" seems inconsistent with the nature of the discussion and likelihood.

Page 196 +

- 12.90 Some of the background material contained in this Chapter should be included in Chapter 1 to set the stage for a better understanding of the process and its results.

Pages 199-200

- 12.91 Under Environmental Issues, natural features including vegetation communities/habitats and endangered/threatened species could be included under #3 (page 200) as follows:

- "3. Scenic and Natural Features
 a. Impacts on scenic quality
 b. Impacts on rare plant and animal species
 c. Impacts on Natural Communities/Habitats"

These issues are important enough to be given more attention in this DEIS. Although no federally endangered/threatened species occur within the river corridor, there are many extant populations of rare species (and many more historical records of rare species) that occur within the proposed boundaries that are considered to be rare on the state level by New York and Pennsylvania. There should be some mention as to how these species will be managed. Floodplain forests and other riverbank communities are considered to be rare natural communities or habitats in New York State.

Some mention should also be made as to how these forest communities will be managed and protected from threats such as timber harvesting and land clearing for the purpose of obtaining better views of the river.

Page 200 et seq.

- 12.92 A paragraph on wildlife should be added to this section. In general, it is well-written. However, it is stated under "Water Flows" that the flows are managed under a Supreme Court Decree and cannot be changed. This is inconsistent with the statements in the plan. The flows and releases have been modified and will be modified in the future within the context of the Supreme Court Decree. Also, the Decree does not cover drought periods and the compact parties may go below the mandated flow levels in such periods. Finally, the Decree itself was changed, from 1930 to 1954, and could be changed again contingent on the unanimous consent of all parties. Similarly, the Good Faith Agreement is subject to change.

Page 207

- 12.93 The comment about local government (and presumably the public in general) lacking input in the 1983 plan and the associated planning process simply is not borne out by the facts. The Planning Team conducted an extensive program of public outreach throughout the process, through numerous meetings with the public, and local officials, periodic reports and newsletters, liaison with public agencies and the CAC, etc. The 1982 public hearings also were designed for this purposes. In actuality, several factors that are not mentioned in the DEIS were responsible for the public becoming increasingly agitated in 1983.
- 12.94 Moreover, it is evident when comparing the 1982 plan with the 1986 plan that the latter constitutes a further refinement of the former, rather than a significant departure from it. Also, it cannot be definitively stated that the 1982 plan, with a 79,000 acre boundary proposal and 225 acres in full fee acquisition was less protective than the 1986 proposed plan. In fact, a case can be made quite readily that the 1982 plan is more protective of the resources and, therefore, more consistent with the objectives of the Rivers act, than the 1986 plan.
- 12.95 Accordingly, the language in the second paragraph should be tempered to simply say that the 1982 plan was rejected during the plan revision process in 1983 and, therefore, the plan development process began anew in 1984.

Prepared by:

NYS Department of Environmental
Conservation

12.1. No response required.

12.2. The Plan Revision Committee reviewed and analyzed all public comments on the draft plan. Based upon those comments, it prepared the proposed final River Management Plan. The committee consisted of representatives of local towns, the States of New York and Pennsylvania, the Delaware River Basin Commission, Citizen's Advisory Council, and the National Park Service. A proposed final plan will be transmitted by the National Park Service to the Secretary of the Interior for his review and determination of whether to approve the plan. If the plan is approved, it will be transmitted to the appropriate committees of Congress, the Governors of the two States, CAC, DRBC and all local governments.

12.3. The Plan Revision Committee reconsidered the proposed modified boundary, based upon numerous comments received on the subject; the Committee reaffirmed the criteria -- direct drainage -- for the proposed final boundary. The final RMP contains a detailed description of the boundary criteria and the rationale for it. The modified boundary incorporates the Upper Delaware River valley, defined as a topographic unit. This boundary criteria is consistent with the 1978 legislation and all earlier planning studies that preceded that legislation.

12.4. The final RMP references the prohibition in Section 7 of the Wild and Scenic Rivers Act, Public Law 90-542, against federally-licensed, assisted, or funded water resource projects that would have a direct and adverse effect on the Upper Delaware valley. No additional information on specific, proposed projects is included in the RMP.

12.5. The final RMP identifies proposed funding and staffing levels for the Upper Delaware Council that will be required to perform its functions. See the final RMP for details and further information.

12.6. No changes were made in the final RMP in response to this comment.

12.7. The EIS contains a list of the major existing state legal authorities and programs in Appendix F. No changes were made in the final RMP, which contains an abbreviated list of the major laws and programs.

12.8. P.L. 95-625, Section 704 directs the Secretary of the Interior to provide general guidelines for land and water use control measures for the Upper Delaware Scenic and Recreational River. The guidelines are not intended to be specific standards; instead the revised guidelines suggest alternative methods for achieving each of the identified principles and objectives based upon sound techniques for land use decisionmaking at the local and state level. No changes were made in the final plan in response to this comment. See the Land and Water Use Guidelines for details and further information.

12.9. Changes were included in the final plan to increase the recognition of the New York State reservoir release program and to encourage the enhancement of that program. See the final RMP for details and further information.

12.10. The water use program in the final RMP on page 107 recognizes and discusses recreation use conflicts on the river and proposes appropriate actions to deal with them. No changes were made in the final RMP in response to this comment.

12.11. Appropriate corresponding changes were made in both the RMP and EIS throughout.

12.12. The final RMP identifies the Congressionally-authorized acquisition ceiling of 1450 acres in the section on Background and Introduction. This information is not repeated elsewhere in the final plan. No specific changes were made in response to this comment.

12.13. See item 12.12. above.

12.14, 12.15, and 12.16. Changes were made in the final plan to reflect these comments.

12.17-12.20. Changes were made in the final plan to reflect these comments. See the final RMP for details and further information.

12.21. and 12.22. Changes were made in the final plan to reflect these comments.

12.23. The suggested changes were included in the final RMP. No other specific changes were made in response to this comment.

12.24. and 12.25. Changes were made in the final plan to reflect these comments.

12.26. No changes were made in the final RMP in response to this comment. The final plan and Land and Water Use Guidelines identify the scenic and recreational segments. The Land and Water Use Guidelines are consistent with the Department of the Interior's "Guidelines for River Areas in the National System." Refer to the Land and Water Use Guidelines for further information.

12.27. No changes were made in the final plan in response to this comment.

12.28. Changes were made in the final plan to reflect this comment.

12.29. No changes were made in the final RMP in response to this comment.

12.30. No response required.

12.31. Changes were made in the final River Management Plan to reflect the variable amounts paid to New York City. No other changes were made in the final plan. Other information on the reservoir release program is found in the EIS.

12.32, 12.33, and 12.34. Changes were made in the final plan to reflect these comments.

12.35. Changes were made in the final plan to reflect this and similar comments. National Park Service acquisition and development of the four sites will only occur as a last resort. The preferred providers are, in order, the private sector, towns, counties, states, or National Park Service.

The sites are identified by general river location irrespective of the side (Pennsylvania or New York) of the river. Specific locations will be decided at a later time with the assistance and advice of the Upper Delaware Council.

12.36. No changes were made in the final plan in response to these comments.

12.37. Changes were made in the final plan to reflect this comment.

12.38. No changes were made in the final plan in response to these comments.

12.39. The final River Management Plan contains a number of changes to the list of Compatible, Conditional, and Incompatible Uses, in response to this and related comments. See the final RMP for details and further information.

12.40. No changes were made in the final plan in response to this comment.

12.41. No specific changes were made in the final plan in response to this comment. However, substantial changes in Council staffing are included in the final River Management Plan. Also, the section in the final plan on Management Structure provides information on the specific responsibilities of Council members. See the final RMP for details and further information.

12.42. It is not believed that the EIS is overly optimistic about the impacts that will occur under the various alternatives or optimistic about the number of towns that will have laws, plans, and ordinances generally consistent with the plan and Land and Water Use Guidelines. Chapter II describes the rationale for estimating the number of towns that would have land use regulations consistent with the final plan and Land and Water Use Guidelines over the course of the planning period on page 8.

12.43. Different institutional arrangements have been considered in past studies and the EIS leading to the Congressional designation of the area. See page 214 of the EIS for a discussion of them and for the reasons that a detailed description and analysis of different institutional structures is not included in the present statement. The paper on institutional arrangements developed by the former planning team in 1981-82 was not used in preparing this EIS and the final RMP, and, hence, is not included in the bibliography.

12.44. As appropriate, corresponding changes have been made in both the EIS and final River Management Plan.

12.45. It is recognized that an almost unlimited number of sub-alternatives might be theoretically possible. This could occur by changing any of the individual elements of the Land and Water Use Guidelines or any of the other elements of the plan. For environmental analysis purposes, the scoping process and further research were used by the EIS team to define the range of reasonable alternatives based upon the information and content of the final River Management Plan.

12.46. See item 3 above. There is no legislative basis for including, within the boundary, tributary or headwater streams because of fishery habitat values.

12.47. See item 9 above. The EIS, page 65, describes the reservoir release program and specifically notes that the National Park Service has no authority to intervene in the allocation of Delaware River waters. The EIS is consistent with statements in the final RMP concerning flow mangement.

12.48. See item 10 above. Use conflicts, per se, did not arise as a significant concern in the planning process or in the scoping process for this EIS. Hence, use conflicts are not addressed indepth in the EIS.

12.49. Changes were made on page 5 of the EIS.

12.50. Chapter II contains a description of the alternatives, including the specific action elements of each. Chapter IV then identifies the environmental consequences of the three alternatives.

Map 5 contains topographic information relevant to the Land and Water Use Guidelines, ie., slopes greater than 15 percent and map 7 identifies the 100-year floodplain.

See item 46 above for the reason tributary streams are not included within the boundary.

Pages 6-8 of the EIS describes the basis for estimating that 12 of the 15 towns would manage their river resources in a manner consistent with the plan and guidelines.

12.51. Section III., C.8 (Water Quality) is particularly thorough because water quality is a major environmental issue; hence, the subject of indepth environmental analysis in Chapter IV. See also pages 206 through 212. While vegetation and wildlife are important contributors to the resource values of the Upper Delaware River, they were not identified in the scoping for this EIS or in related research as major environmental issues warranting detailed description and discussion in the EIS. The level of information on vegetation and wildlife is considered appropriate for the purpose of describing the environment of the area.

12.52. See item 51 above.

12.53. and 12.54. Changes were made in the final plan and EIS on page 2 to reflect these comments.

12.55. See item 47 for information on water releases and item 48 with respect to use conflicts. Reservoir releases and recreation use conflicts are not action elements within the scope of the EIS.

12.56, 12.57, and 12.58. Changes were made in the final EIS to reflect these comments on pages 13, 27, and 58, respectively.

12.59, 12.60, 12.61 and 12.62. Changes were made in the EIS to reflect these comments on pages 35, 36, 63, and 65, respectively.

12.63. Changes were made in the EIS on pages 64-67 to reflect this comment and those received on the same item from the Delaware River Master.

12.64, and 12.65. Changes were made in the EIS to reflect these comments on pages 75 and 77.

12.66. Changes were made in the EIS to reflect this comment.

12.67. (a) Changes were made to reflect this comment on EIS page 79.

(b) Changes were made to reflect this comment on EIS page 79.

(c) The section on affected environment focuses on shad, bass, and trout because fisheries were identified in scoping as a major environmental issue. While all components of aquatic communities are important, they are not described in the EIS because the analysis focuses on the impacts to major species.

(d) See items 3 and 46. Tributaries and headwaters are not included within the boundary.

(e) See items 47 and 55. The National Park Service has no authority under Section 704 to change the reservoir release program. Flow releases are not an action element in the plan.

12.68. Changes were made in the EIS on page 81 to reflect this comment.

12.69. Changes were made to Map 8.

12.70. None were reported by the New York Department of Environmental Conservation or the Pennsylvania Fish Commission.

- 12.71. (a) No changes were made.
- (b) Changes were made in the EIS on page 81 to reflect this comment.
- 12.72. (a) The last sentence refers to agricultural lands in Pennsylvania. The Commonwealth of Pennsylvania did not suggest changing this sentence in its comments on the draft EIS; hence, no changes in the EIS were made in response to this comment from the State of New York.
- (b) The figure of 5-6 tons per acre per year is loss from cropland along the river of which there is a relatively small amount.
- 12.73. See Table III.4 for this information.
- 12.74. Changes were made in the EIS to reflect this comment. See page 94.
75. (a) Changes were made in the EIS to reflect this comment on page 94.
- (b) New York and Pennsylvania advised us that hunting figures are not available for the area within the proposed river corridor. Available statistics are on a county-wide basis.
- (c) "River area" has been changed to "region".
- (d) Updated figures obtained and incorporated into the EIS.
- (e) The areas referred to are those in Map 9 and the text was clarified.
- (f) Changes were made to reflect this comment on page 95.
- 12.76. User, landowner and livery operator surveys conducted during the course of the planning effort did not identify conflicts as a major issue. Lack of access and facilities was cited much more often as a problem and therefore the EIS and plan focused on these, more than conflicts in use.

12.77. Changes were made to reflect the comment. Non-river uses were not estimated because NY DEC and other studies focused on manging river-related recreation use as opposed to recreation in general.

12.78. and 12.79. Changes in EIS Tables III.5 and 6 were made to reflect these comments. The projection method described in Appendix C smooths the effect of this high year in the calculation of trends.

12.80. Changes were made to reflect this comment on EIS page 127. See items 3, 46 and 67(d). Tributaries and headwaters are not in the boundary. No action elements of the plan pertain to these areas.

12.81. Changes were made to add this information on EIS page 127.

12.82. The EIS focuses only on those actions and resources within the proposed boundary. While actions outside of the corridor could cause impacts within the corridor only those impacts directly related to the plan were analyzed.

12.83. The planning process, and the preparation of this EIS, did not identify use conflicts between anglers and canoeists as a factor influencing the quality of the trout fishery. See also items 48 and 10 above. The quality of the fishing experience was analyzed in terms of access, and facilities. See pages 147 and 150.

12.84. No changes were made in the EIS in response to this comment. Page 135 of the EIS notes that according to the Soil Conservation Service system of soil classification, most soils in the corridor have severe limitations for septic systems. The sentence on page 136 is consistent with this information.

12.85. Pages 6 and 7 of the EIS provide the basis for the estimate that 12 of the 15 corridor towns would manage their river resources consistent with the plan and guidelines over the course of the planning period. This number is based upon sound realistic planning and recent local government experience in the valley.

12.86. The angler figures for 1983 and 1985 have been identified as being based on NPS visitor counts. Figures in EIS Table III.5 are not used in this analysis.

12.87. The River Management Plan does not propose development of any new boating access sites north of Narrowsburg; therefore, no response is made to this comment.

12.88. The existing license does not mention "water courtesy."

12.89. A careful review and analysis of the impacts of land use changes over the next 20 years within the corridor support the conclusion of negligible impacts under this alternative. See pages 187 through 189. This conclusion is based, in large measure, on the estimate that 10 of the 15 river towns would adopt land use ordinances consistent with the proposed Land and Water Use Guidelines.

12.90. Reference is made to this chapter on page 5.

12.91. See item 51. Natural features, vegetation and wildlife were not identified in the preparation of this EIS as major environmental issues.

12.92. See items 47, 55 and 67(e).

12.93. Locally elected officials and/or their representatives did not actually participate in writing the previous 1983 plan or 1981 guidelines. Changes were made in the EIS to reflect this fact.

12.94. The current RMP is a major deviation from all earlier planning efforts, also involving substantial revision of the 1981 Land and Water Use Guidelines.

Under Section 704, the National Park Service has sharply limited authority to protect important valley resources; instead Section 704 relies primarily on the actions of local governments and citizens to protect the area. See the Land and Water Use Guidelines. In this regard, the 1982/83 plan was strongly opposed in the valley; thus, it is highly unlikely it would have lead to significant resource protection by local governments, as envisioned in Section 704. This supports the conclusion in the EIS that the 1983 plan would not protect valley resources to the same degree as the proposed final RMP.

12.95. See items 93 and 94. No other changes were made in the EIS.

STATE OF NEW YORK
 DEPARTMENT OF HEALTH  OFFICE OF PUBLIC HEALTH

CORNING TOWER

THE GOVERNOR NELSON A. ROCKEFELLER EMPIRE STATE PLAZA

ALBANY, N.Y. 12237

DAVID AXELROD, M.D.
 Commissioner

LINDA A. RANDOLPH, M.D., M.P.H.
 Director

WILLIAM F. LEAVY
 Executive Deputy Director

May 29, 1986

MID-ATLANTIC REGION	Initial and Date
JUN 11 1986	
Records	
Public Health	
Lab	
Professional	
Health Education	
PHS	
PHS	
State Government	
Administration	
Commutal	
Program	
Finance	
Property	
Information Mgmt.	
Commercial Acts	

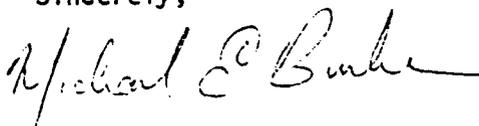
Mr. James W. Coleman, Jr.
 National Park Service
 Mid-Atlantic Service
 143 South-Third Street
 Philadelphia, PA 19106

Dear Mr. Coleman:

13.1 Commissioner Henry G. Williams of the New York State Department of Environmental Conservation requested our review and comments on your draft Environmental Impact Statement concerning the Upper Delaware Scenic and Recreational River.

Our Department supports the alternative to implement the proposed river management plan. This alternative will safeguard water quality which is vital to future drinking water needs.

Sincerely,



Michael E. Burke, P.E.
 Director
 Bureau of Public Water Supply Protection

MEB/cam

13.1. No response required.



New York State Office of Parks, Recreation and Historic Preservation

The Governor Nelson A. Rockefeller Empire State Plaza
Agency Building 1, Albany, New York 12238

518-474-0456

July 1, 1986

C. Tobias
7/1
RMP file

Cliff Tobias
National Park Service
143 South Third Street
Philadelphia, PA 19106

Re: NPS
Upper Delaware Scenic and Recreation River
Management Plan and DEIS

Dear Mr. Tobias:

The New York State Historic Preservation Officer (SHPO) has reviewed the Draft River Management Plan (The Plan) and Draft Environmental Impact Statement (DEIS) in accordance with the Advisory Council on Historic Preservation's regulations, "Protection of Historic and Cultural Properties", 36 CFR 800.

Based upon a review of these documents by our staff, the SHPO offers the following comments:

The Plan (pages 71 and 72; specific Management Responsibilities)

- 14.1 Point #1 - The coordination with the upper Delaware Management Council needs to be clarified. Of particular concern is our agency obligation to conduct reviews of projects. For example, when our office conducts reviews of Federal and State projects we have to meet specific time deadlines. We need assurance that these time constraints are not jeopardized.
- 14.2 Point #2 - The term "Projects" (2nd line) should probably be changed to read "Properties".
- 14.3 Point #3 - Our office routinely assists in the preparation of National Register documentation. However, it is critical that governments participating in The Plan understand that some limitations may exist regarding our staff availability.
- 14.4 Point #4 - The SHPO will participate in consultation and on-site visits as much as possible. Again, limitations may prevail.

Point #5 - No Comments.

The DEIS

Our comments to this document are perhaps most applicable to Alternates 1 and 3. Still, we feel they are also relevant to Alternate 2 (Maintain Status Quo).

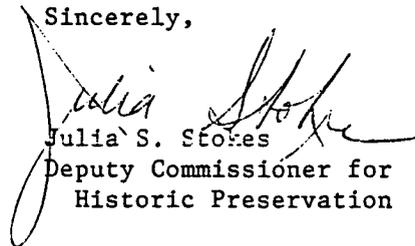
- 14.5 1. In order to better protect cultural resources, river patrol personnel should be made aware of archeological site locations, archeological sensitive areas, and locations of historic properties.

Mr. Tobias
Page 2
July 1, 1986

- 14.6 2. Regarding impacts from new development, local government should be encouraged to actively participate in the protection of cultural resources. Much new development and construction may be monitored through existing legislation (ie. the New York State Environment Quality Review Act. Local Department of Conservation offices may be contacted for more information on this act).
- 14.7 3. Regarding the management and interpretation of archeological resources, the SHPO is not in a position to immediately take the lead in nominating previously identified sites to the National Register. However, we encourage such action and will assist as much as possible.

I trust that these comments are of value in preparing final documentation for activities related to the upper Delaware Scenic and Recreational River (New York and Pennsylvania). If we can be of further assistance, please contact our Project Review staff at 518-474-3176.

Sincerely,



Julia S. Stokes
Deputy Commissioner for
Historic Preservation

Sm

14.1. Changes were made in the final RMP to reflect this comment.

14.2. Changes were made in the EIS to reflect this comment.

14.3 and 14.4. No response required.

14.5. The Water Use Program in the RMP calls on the National Park Service to inform river users about the need to protect significant resources. The Cultural Resource Management section of the RMP also directs the Service to safeguard archeological and historic properties. River patrol personnel of the National Park Service are made aware of these resources, although the Service has no authority on private land or for private historical resources.

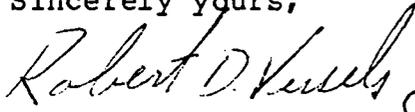
14.6. The RMP specifically encourages local governments to participate in the protection of cultural resources. See the final RMP for details and further information.

14.7. No response required. The National Park Service will assist and encourage local governments to nominate, as appropriate, sites to the National Register of Historic Places.

Mr. James Coleman
Page 2
June 27, 1986

- 15.3 We recognize that the more or less unspoiled rural landscape of the Upper Delaware Valley is one of the main reasons that the area is considered to have a high scenic quality and that it was added to the National Wild and Scenic River System by Congress. It is therefore not surprising to find the prohibitions against the development of incompatible land uses identified on page 23 of the draft; these prohibited land uses include major electric transmission lines and electric generating stations. While we agree that these uses should be avoided to the extent possible, we feel that the process adopted should provide for a balancing of the need for such development against the available practical means whereby intrusion can be avoided in the scenic area or the mitigation measures available to minimize the impact.
- 15.4 In general, we agree these facilities should both be avoided if possible and at this time appear unnecessary in the Upper Delaware River area under study. Local development activities which are inconsistent with the scenic-rural character of the area should be prohibited by local jurisdictions. Development which has broader implications, however, such as major transmission power lines, power generating stations, oil and gas transmission lines and major roads and bridges should be reviewed in a broader context. Local interests should participate in the consideration of whether and under what conditions such broader development should take place but should not unilaterally preclude such facilities when necessary and properly designed.
- 15.5 The New York State Transmission Siting and Power Plant Siting programs require consideration of local and broad interests including among other things land uses and scenic areas; the procedures also require consideration of alternatives and mitigation measures. The programs require that the need for projects be balanced with the impacts. We believe this approach is preferable to prohibitions against development which do not consider the circumstances which actually prevail at the time that such facilities are proposed.

Sincerely yours,


ROBERT D. VESSELS (J.S.)

Director

Office of Energy Conservation and
Environmental Planning

RDV:JMCL:11r
cc: Dana Roberts
John Smolinsky
John McLean
Robert Horn

15.1. and 15.2. No response required.

15.3. No response required.

15.4. and 15.5. The proposed final River Management Plan lists major oil and gas transmission lines, power generating plants, and major electrical lines as incompatible uses. See RMP for details and definitions. All such uses are inconsistent with and contrary to the Congressional designation of the Upper Delaware as a unit of the National Wild and Scenic Rivers System. Each would constitute a clear and direct threat to river resources.



STATE OF NEW YORK
DEPARTMENT OF STATE
ALBANY, N.Y. 12231

GAIL S. SHAFFER
SECRETARY OF STATE

MAY 15 1988

Mr. James W. Coleman, Jr.
Regional Director
Mid-Atlantic Region
National Park Service
143 South Third Street
Philadelphia, PA 19186

Dear Mr. Coleman:

16.1 This letter is in response to New York State Department of Environmental Conservation Commissioner Williams' request for review and comment by the New York State Department of State on the Upper Delaware Scenic and Recreational River Draft Management Plan and Draft Environmental Impact Statement.

Staff have reviewed both the Plan and its appended Land and Water Use Guidelines and the DEIS giving particular attention to our departmental programs and responsibilities, possible local government impact, and consistency with New York State land use enabling legislation.

Based on our review, we find that the Draft Management Plan and DEIS are generally consistent with the intent of the State's land use enabling legislation. Detailed review comments on the Plan, its Land and Water Use Guidelines and the DEIS are included as a separate attachment.

Also enclosed are three of our Local Government Technical Series publications for informational purposes. They are, "Guide to Planning and Zoning Laws of New York State", "Sign Control" and "Site Development Plan Review".

Department of State staff are available to elaborate and answer any additional questions regarding our review comments of the Draft Management Plan and Draft Environmental Impact Statement.

Sincerely,

James N. Baldwin
Executive Deputy
Secretary of State

JNB:mb
Attachments

MID-ATLANTIC REGION		Initial and Date
MAY 22 1988		
Director		
Deputy Director		
EEC		
Public Affairs		
Mgmt. & Operations		
CRM		
Legal		
Public Relations		
Information		
Personnel		
Program		
Finance		
Property		
Information Mgmt.		
Commercial Acts		

REVIEW AND COMMENTS

UPPER DELAWARE DRAFT MANAGEMENT PLAN,
LAND AND WATER USE GUIDELINES AND
DRAFT ENVIRONMENTAL IMPACT STATEMENT

Draft Management Plan

- 16.2 p. 20, p. 30 - when referring to New York State, the term State Legislature should be used rather than General Assembly.
- 16.3 p. 25-26 - the differentiation between thorough evaluation of the Plan after twenty years (p. 25) and comprehensive review at least every five years (p. 26) is unclear. Since planning constitutes a continuing process, the reference to the former should be eliminated.
- 16.4 p. 30-32, p. 44 - the realty subdivision review function of the NYS Department of Health is omitted from the Plan. The DOH review function for Delaware and Sullivan Counties is administered by the District Health Offices in Oneonta and Monticello, respectively. The Orange County Department of Health performs the review function in that county.
- 16.5 Map 3 of 8 following p. 54 - blue color identifying the Delaware River was excluded at bottom of the page.

Land and Water Use Guidelines

- 16.6 p. X and p. 105 - Table of Contents - the two Tables are not in agreement with each other. The Table of Contents in the Guidelines section is incomplete and not reflective of the Guidelines headings. For example, each subject identified on p. 105 should conform with the headings in the text. Some of the subheadings such as Non-conforming Uses and Hamlet Areas are omitted on p. 105.
- 16.7 p. 107 - the paragraph concerning non-conforming uses, includes the term "grandfather", which is not customarily used in this context. The section encourages the permitting of expansion and replacement of non-conforming uses. This is contrary to the general philosophy of limiting such expansion and replacement in the interest of eventually bringing the use into conformity, over time. The approach recommended, however, may well be more feasible and practical, in that it would allow for the improvement and maintenance of non-conforming uses which could otherwise fall into disrepair if the owners were not allowed to improve their properties.
- 16.8 With regard to existing sub-standard, non-conforming lots, case law suggests that building permits should be granted, if all other requirements can be met, or variances should automatically be granted those lots existing as of the effective date of the zoning regulations or amendments. Regulations could also include provisions that in the event an individual owns contiguous property, the two parcels be merged, so as to obviate the non-conformity. The Guidelines as written appear to negate the use of this technique.

- 16.9 p. 108 - the Guidelines place great emphasis on land use controls in hamlet areas. An explanation should be provided that there is no governmental unit in New York State designated as a "hamlet". Hamlets are unincorporated built-up areas within towns. Any land use controls applicable to hamlet areas would be promulgated and enforced by the town.
- 16.10 p. 108 - in the discussion of variances, the Guidelines suggest that the granting of a use variance may result in a community being found not to be in substantial conformance with the Guidelines. This could overly restrict boards of zoning appeals and create constitutional problems.
- 16.11 p. 109 - Section 3 - this section relates to land use guidelines only, except for the introductory paragraph. The title of this section should appropriately be modified. The lead paragraph could explain that the following two sections offer water use guidelines and general guidelines, respectively. See comment for p. 117.
- 16.12 p. 111 - Objective 4, sign design standards should receive greater elaboration in the Appendix. Appropriate information can be distilled from the enclosed copy of the DOS publication entitled Local Government Technical Series: Sign Control.
- 16.13 p. 112-113 - the section entitled (c) All Recreational Uses should include the final paragraph on p. 124, dealing with buffering between uses, because of its general applicability to recreation uses.
- 16.14 p. 115 - the Schedule of Principal, Conditional and Incompatible Land Uses should be placed in the Appendix of the Guidelines. Appropriate reference to the Schedule should be made in Principle F.
- 16.15 p. 116 - the reference to densities for non-residential uses based on an equivalent dwelling unit concept, tied to estimated sewage effluent, lacks appropriate criteria. Perhaps the definition of the term on p. 119 could be modified to include residential effluent flow standards.
- 16.16 p. 117 - Principles G, H and I (objectives 3 and 4) apply to both land and water uses. They are, however, discussed only in Section 4 which deals exclusively with water use control measures. These Principles should be included as part of a new Section 5 covering both types of uses.
- 16.17 p. 118 - Definitions - a number of the definition descriptions could be improved. for example:
- conditional use - 'site plan review' is not the same as 'conditional use' and should therefore not be equated with it in the definition. The conditional use is either allowed or prohibited in a particular zoning district. Site plan review is a design participation mechanism for particular allowed uses, whether by right or conditional, in a particular zoning district. Not all conditional uses would need site plan review, e.g., certain home occupations.

- garden apartments - is it necessary to specify the type of ownership for this land use?
- natural resource products - as used in the Guidelines, this definition should be renamed mineral and soil resource products. More general references to natural resources are made in other parts of the Guidelines.
- site plan review - in New York State this procedure can be administered by the municipal legislative body, zoning board of appeals, planning board or a combination of them. It is, above all, a design review mechanism for parcels of land proposed to be developed which would ordinarily not be subject to subdivision review.
- variance - the definition should include a more detailed description of the basis for granting a variance from the requirements of the zoning regulations. For instance, the description could include language stating that the zoning board of appeals or the zoning hearing board has authority to vary or modify the strict letter of the zoning law in cases where it could cause unnecessary hardship or practical difficulty for the applicant. New York State enabling law states that the spirit of the regulations shall be observed, public safety and welfare secured and substantial justice done.

Draft Environmental Impact Statement

- 16.18 p. 210 - the New York State Department of State is omitted from the Environmental Impact Statement distribution list.
- 16.19 p. 242-243 - the second paragraph on page 242 needs revision. Our latest information indicates that the Lumberland Town Board recently approved zoning regulations. Seven of the eight towns in New York, therefore, have zoning laws now. In addition, the description of towns that have designated river districts should include Lumberland. It is interesting to note that Map 12 (Existing Zoning) already identifies the town's River Overlay District. The Inventory of Local Land Use Controls and Plans on page 243 also needs revision in regard to the information for Lumberland. The columns entitled Zoning Appeals Agency and Site Plan Review should identify their presence.
- 16.20 p. 247 - reference to the Realty Subdivision Law is incorrect. The Public Health Law and the Environmental Conservation Law are the bases for enabling State water supply and sewage disposal review respectively. An interagency agreement entered into between DEC and DOH directs the latter to perform subdivision reviews for both functions.

16.1. No response required.

16.2, 16.3, 16.4, 16.5, and 16.6. Changes were made in the final plan and guidelines to reflect these comments.

16.7. No changes were made in the plan in response to this comment.

16.8. Changes were made in the final plan and guidelines to reflect these comments.

16.9. The term hamlet is defined in the RMP.

16.10. Changes were made in the RMP to address this and similar comments. See final RMP for details and further information. The RMP places no restrictions on the authorities of local governments.

16.11. Changes were made in the final plan to reflect these comments. See final RMP for details and further information.

16.12. The level of detail in the plan is considered appropriate. No changes were made in the RMP in response to this comment.

16.13. and 16.14. Changes were made in the final plan to reflect these comments. See final RMP for details and further information.

16.15. No changes were made in the RMP in response to this comment. The Land and Water Use Guidelines are not intended to be specific standards; instead, the revised guidelines suggest alternative methods for achieving each of the identified principles and objectives based upon sound techniques for land use and decision making at the local level.

16.16. Changes were made in the final plan to reflect these comments. See final RMP for details and further information.

16.17. Numerous changes were made in the definitions to address these and similar comments. See RMP and the revised guidelines for details and further information.

16.18. The New York Department of State has been added to the distribution list.

16.19. and 16.20. Changes were made in the EIS to reflect these comments.

DEPARTMENT OF ENVIRONMENTAL RESOURCES

June 26, 1986

SUBJECT: Draft EIS for the Draft River
Management Plan, Upper Delaware
Scenic and Recreational River
SAI #: EI-00047

TO: Barbara J. Gontz
PA Intergovernmental Council

FROM: Anthony J. Donatoni, *Anthony J. Donatoni*
Secretary's Office of Policy
Department of Environmental Resources

17.1 . Our Department generally supports the Resource Management Plan for the Upper Delaware Scenic and Recreation River. We believe the plan is a legitimate, viable compromise among parties with resource management responsibilities in the Upper Delaware area. Our greatest concern is that the plan provide for the continued participation of all parties and shared responsibility for its implementation. If this does not occur, the concept of unified protection will greatly affect the chances of success.

Attached are our technical comments on the Draft Environmental Impact Statement.

Attachment

TECHNICAL COMMENTS

Upper Delaware National Scenic & Recreation River
Draft River Management Plan

- 17.2 Page 1 - second paragraph - Use of the word watershed as a special protection area designated pursuant to rules and regulations of the Department of Environmental Resources is correct to a certain degree. However, it is not the entire Delaware watershed but only that portion of the Delaware watershed above Tocks Island, on the Pennsylvania side.
- 17.3 Page 3 - last paragraph - The Lackawaxen River is also a high quality watershed. Delete the phrase "except for the Lackawaxen River". Last line in the last paragraph relates to discharges in the tributaries stating that there could be no new discharges made to tributaries along their entire lengths. This is not absolutely correct in that there may be special socio-economic justification for the utilization or the development of lands on those tributaries; however, any development would require extremely close scrutiny of the proposed discharges prior to any approval; then, if no degradation of water quality would occur, the project could proceed.
- 17.4 Page 5 - The fishing section for some reason does not discuss shad which is a major recreational opportunity along the Upper Delaware.
- 17.5 Page 5 - last paragraph - Why not use National Park Service figures? Are they not more current?
- 17.6 Page 9 - third paragraph, ninth line - The word "land" is unneeded.
- 17.7 Page 20 - first paragraph - Reimbursement of Council Members. If this means the meeting expenses, travel mileage, etc. associated with the attendance of a meeting, we can agree. However, this should not be construed to mean that Council members may be paid hourly rates for their participation in the Management Council. The townships are receiving benefits whether they choose to recognize it or not and as such should contribute their time as a part of the cooperative effort.
- 17.8 Page 21 - first paragraph - Item 5 - Cannot the townships contribute cash also? They are, or could receive money from the National Park Service to defray costs of police and sanitation. Why not commit some money (maybe a very small amount) to this effort to show their cooperative spirit.
- 17.9 Page 25 - Plan Implementation and Evaluation, second paragraph - Unless this is a legal requirement, we would speculate that the 20 year effectiveness of a river management plan is about twice as long as it should be. In 10 years the amount of change that could occur, not only in terms of land use along the Upper Delaware, but the changes in rules and regulations at various governmental levels may be substantial and should be incorporated into a management document of this nature.

- 17.10. Page 29 - Item 2 - The statement should be followed by, "pending the availability of funds." Item 6 should read continued management of state-owned game "lands." First Item 7 - insert "Department of Community Affairs" after Department of Environmental Resources.
- 17.11. Page 42 - last paragraph - Rhetorically speaking, what if a township is in substantial conformance and has made the right decisions (according to the Management Plan) but an appeal by an individual landowner to a court allows a clear and direct threat to occur. Is that grounds for nonconformance of a township, and if not, can the Secretary acquire the threat which is then legally sanctioned by the court?
- 17.12. Page 50 - paragraph 3 and 5 - The use of the words arbitrary and indiscriminate as they relate to acquisition by eminent domain are words which have commonly been used in the local area. However, we object to the use of these words in this text in that it is doubtful recognizing the tremendous legal hurdles and lengthy legal requirements that the use of condemnation must follow, that any would ever be arbitrary or indiscriminate. The use of these words also derogates the National Park Service whenever it has continually stressed that it will not use that mode of acquisition on the Upper Delaware unless all other recourse has failed.
- 17.13. Page 51 - last line - "Should" should be replaced with the word "shall".
- 17.14. Page 54 - first paragraph - We feel that relegating the original 1978 line and its establishment to mere error is not the factual way to explain what happened. That first line was based on conscious decisions (based on some criteria) by planners in Philadelphia and/or Denver, but cannot be deemed simply an error.
- 17.15. Page 58 - third paragraph, tenth line - replace "will" with "could".
- 17.16. Page 59 - Item 4 - We recommend the first sentence be changed to the following: "Prohibit intrusive water resources development within the corridor on the mainstem of the Upper Delaware Scenic and Recreation River". We would also recommend deleting the second sentence - none of the other 5 items list examples and these items are covered other places in the text. Upper Delaware Management Council - Item 1 - line 5 - should read - ...and possible improvement.
- 17.17. Page 60 - Intergovernment Responsibilities - Item 1 and 2 - We agree with the exhortation for cooperation among the parties enumerated; however, it appears that the Management Council is to become the focus of water resource management. In the same cooperative spirit we could recommend the text be changed in Items 1 and 2 to read, "The Upper Delaware Management Council will work cooperatively with the DRBC, states of New York and Pennsylvania, and New York City....."

- 17.18. Last line - For what reason does the State of New York's paying \$500,000 a year to obtain releases have to do with the implementation of this Management Plan? We would recommend its deletion from the text.
- 17.19. Page 61 - National Park Service - The National Park Service is basically the Recreation Use Manager of the Upper Delaware. Does the Service want to be cast in the role of doing water flows and water quality studies when it does not have the practical expertise and there are agencies in both New York and Pennsylvania and the Delaware River Basin Commission that continually do this kind of undertaking. Would it not be redundant to have the N.P.S. duplicate the responsibilities of other agencies?
- 17.20. Item 2 and 4 - These items are very similar and probably should be combined into one overall statement.
- 17.21. Page 79 - The second paragraph should be changed to read,"may develop" rather than will develop. This option while conceptually agreeable to the Commonwealth of Pennsylvania has not been thoroughly researched in terms of topography, suitable location, etc., nor has the question of on-site administration and liability assumption been suitably resolved.
- 17.22. Page 94 - last paragraph - Pennsylvania fishing officers are more properly known as Waterways Conservation Officers.
- 17.23. Page 132 - A canoe-in campground on state forest land will cost in excess of \$100,000 (estimate) depending on the capability of the State of Pennsylvania to access the site and actually complete construction. It should be recognized that this item is contingent upon the appropriation of monies.
- 17.24. Concerning the River Management Council costs, we do not feel that the \$500,000 proposed budget is appropriate. We would estimate that something on the order of \$125,000 would be much more appropriate recognizing the undeveloped nature of this stretch of river and the current involvement of many professionals; i.e., state, county and local planners to do much of the work that is obviously being proposed for the Management Council staff. We likewise would say that the required number of staff should be on the order of 3 rather than 8 to coordinate reviews of the various agencies and individual entities involved in carrying out the implementation of the Management Plan.
- 17.25. Page 147 - We understand the assumptions made by Lehigh University concerning the amount of income for river towns and townships. However, it seems to overlook the fact that township budgets have been augmented by police and sanitation contracts from the N.P.S. and have allowed communities to utilize funds other places. This should be recognized in the economic assessment narrative.

DRAFT - ENVIRONMENTAL IMPACT STATEMENT

General Comment:

- 17.26 We support the preferred alternative - alt. 1) - the implementation of the River Management Plan and Land and Water Use Guidelines which appears to be a workable compromise between federal, state and local interests on problem issues including land use management, acquisition and recreation development, and overall river administration through a Management Council.

Specific Comments

- 17.27 Page 18 - The Pond Eddy Fishing Access is listed in Westfall Township and shown on the map in Shohola Township.

- 17.28 Page 66 - Third paragraph - first line - dates should be changed to 1961-1966. Third paragraph - last sentence - should be modified to read: "Basically, during droughts, New York City's schedule of releases from its reservoirs into the Delaware is modified to help keep the "salt front" downstream of the Philadelphia and Camden, New Jersey water supplies."

- 17.29 Page 68 - Fourth line - should read -.... to improve the fishery habitat in the reaches immediately downstream of the dams.

- 17.30 Page 69 - We would assume that since the Cortese Landfill is a surface water concern, it would be advisable to mention its potential impacts on groundwater also.

- 17.31 Page 125 - We disagree with the assumptions made by the EIS team that recreation use will grow 64% between now and 2005.

Perhaps this would be a valid assumption if this were a wholly owned public recreation area (National Park) and not a predominantly privately owned resource.

We have seen a decrease in recreation use in the last two seasons - even though the canoe livery operators have stepped up their media campaigns in the New York area.

We would speculate that a 25% - 30% increase in use over the life of this Plan would be more realistic.

17.1. No response required.

17.2, 17.3, 17.4, 17.5, and 17.6. Changes were made in the final plan to reflect these comments. See final RMP for details and further information.

17.7. The Plan Revision Committee considered this and similar comments. The final plan proposes that town council members receive some minimal reimbursement for membership. See RMP for details and further information.

17.8. The final RMP provides that towns may provide in-kind services to the Council. See RMP for details and further information.

17.9. Changes were made in the final plan to reflect these comments. See final RMP for details and further information.

17.10. Changes were made in the final plan to reflect these comments.

17.11. This is addressed on page 117-118 of the RMP.

17.12. No changes were made in the final plan in response to these comments.

17.13. Changes were made in the final plan to reflect these comments.

17.14. No changes were made in the final plan in response to these comments.

17.15. Changes were made in the final plan to reflect these comments.

17.16. No changes were made in the final plan in response to these comments.

17.17. Changes were made in the final plan to reflect these comments.

17.18 and 17.19. No changes were made in the final plan in response to these comments.

17.20, 17.21, and 17.22. Changes were made in the final RMP to reflect these comments. See final plan for details and further information.

17.23. No changes were made in the final plan in response to these comments.

17.24. Proposed staffing levels for the Upper Delaware Council have been substantially revised. See final plan for details and further information.

17.25. No changes were made in the economic assessment.

17.26. No response required.

17.27. The four 2-acre access sites recommended in the plan and identified in the EIS are now defined as fishing access sites and their location is identified by river area, such as Pond Eddy, rather than township. The specific location, including the side of the river, will be determined at a later date based ,in part, on the availability of land from a willing seller, topographic and access constraints, and environmental concerns.

17.28, 17.29, and 17.30. Changes were made in the EIS to reflect these comments on pages 64-75.

17.31. As pointed out, there has been a decrease in use levels over the last two years due to many variables. For the purposes of this analysis, we used a projected method that would yield a conservative estimate. Although the 64% increase over 1985 levels seems high, it only represents a 20% increase over the 1983 level.

Pennsylvania Intergovernmental Council

P. O. BOX 11880 • HARRISBURG, PA. 17108-1880 • (717) 783-3700

MID-ATLANTIC REGION

JUN 27 1986

Initial
and
Date

June 20, 1986

James W. Coleman, Jr., Regional Director
United States Department of the Interior
National Park Service
Mid-Atlantic Region
143 South Third Street
Philadelphia, Pennsylvania 19106

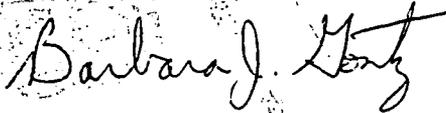
Dear Mr. Coleman:

Subject: Draft Environmental Statement

- 18.1 Pennsylvania's Single Point of Contact under Executive Order 12372 (Intergovernmental Review of Federal Programs) has received copies of the Draft Environmental Impact Statement for the Draft River Management Plan, Upper Delaware Scenic and Recreational River. We distributed copies to several of our reviewing agencies; these agencies do not wish to comment on the EIS.

We appreciate the opportunity to review this document.

Sincerely,



Barbara J. Gontz
Project Coordinator
Intergovernmental Review Process

BJG/slk

18.1. No response required.

Pennsylvania Intergovernmental Council

P. O. BOX 11880 • HARRISBURG, PA. 17108-1880 • (717) 783-3700

MID-ATLANTIC REGION		FILED and DATE
JUL - 3 1986		
Director		
Assistant Director		
ES		
Administrative Services		
Public Affairs		
Planning		
Records Management		
Training		
Telephone Room		
Director's Office		

June 30, 1986

James W. Coleman, Jr., Regional Director
United States Department of the Interior
National Park Service
Mid-Atlantic Region
143 South Third Street
Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

- 19.1 Pennsylvania's Single Point of Contact under Executive Order 12372 has received the enclosed comments from the Pennsylvania Department of Environmental Resources regarding your Draft Environmental Impact Statement for the Draft River Management Plan, Upper Delaware Scenic and Recreational River (SAI #EI-00047). Although the period for comments has passed, we are forwarding them to you for informational purposes.

Should you have any questions, please feel free to contact me.

Sincerely,

Laine A. Heltebride

Mr. Laine A. Heltebride
Special Assistant
Intergovernmental Review Process

LAH/klm

Enclosure

19.1. See responses to Pennsylvania Department of Environmental Resources comments.

EIS file



CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
2358 MUNICIPAL BUILDING, NEW YORK, N.Y. 10007 (212) 669-8200

HARVEY W. SCHULTZ
Commissioner

July 17, 1986

James W. Coleman, Jr., Regional Director
Mid-Atlantic Region
National Park Service
143 South Third Street
Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

The New York City Department of Environmental Protection (NYCDEP) is pleased to see a cooperative plan to preserve the Upper Delaware River in its current near natural state. The following are comments on both the Draft Environmental Impact Statement (DEIS) and the Draft River Management Plan (DRMP) for the Upper Delaware Scenic and Recreational River.

- 20.1 Of central concern are the several references in the DRMP to water flow issues and water flow schedules in describing the Plan's objectives (see page 59) and programs (see page 60). These references are in direct conflict with the DEIS which states that "Any actions which affect flow management are beyond the scope of the river management planning effort..." (see page 200). The DEIS accurately reflects the fact that the 1954 U.S. Supreme Court Decree is the exclusive authority in determining flow management, subject to changes made by the Delaware River Basin Commission which have the unanimous consent of the four states and New York City (during normal hydrologic conditions). The DEIS emphasizes this fact by stating, "Congress did not give the National Park Service any authority to intervene in the allocation," (page 66) and, "The Plan cannot propose any action to change the court decree," (page 200). Indeed, the DEIS states that flows are not analyzed as an impact topic since they are beyond the scope of the river management planning effort. Therefore, the statements concerning water flow management in the Draft RMP should be deleted or amended to reflect the DEIS position that flow management is neither a negotiable topic nor subject to the mandates of the River Management Plan.

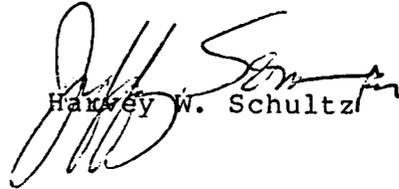
DEP has the following additional comments:

- 20.2 ° Flow Management (DEIS, p. 65-66): This section should reflect the fact that the release program on the Delaware River, in addition to being governed by the U.S. Supreme Court Decree, is also regulated under New York State Department of Environmental Conservation (DEC) regulations, a 1980 Stipulation of Discontinuance between New York State and New York City, and the Interstate Water Management Recommendations of the Parties to the U.S. Supreme Court Decree of 1954, as adopted by the Delaware River Basin Commission.
- 20.3 ° River Characteristics (DEIS, p.64): The statement regarding river characteristics should be changed to reflect the fact that the Neversink River is not one of the major tributaries of the designated Section of the upper Delaware River under the National Wild and Scenic Rivers Act.
- 20.4 ° New York and Pennsylvania (DRMP, p.60): The Draft RMP notes that the State of New York currently pays to the City of New York \$500,000 per year pursuant to the City's Conservation release program. This statement creates the misconception that the State pays the City for water it releases. The fact is that the \$500,000 paid to New York City is compensation for lost hydro-electric revenue. This statement should be amended to prevent the mistaken implication that there is abundant storage and availability of water which can be purchased from the City.
- 20.5 ° Background and Introduction (DRMP, p.8): The Draft RMP states that during the summer of 1984 fewer visitors used the Delaware River than in the peak year of 1981. This drop in recreational usage is attributed to "low flow conditions". It is possible and even probable that the decline is attributable to any number of social, economic, and environmental factors occurring during the summer of 1984. Therefore, since there is no evidence to show that the low flow was a primary factor in decreasing visitor use of the river, this statement should be deleted.
- 20.6 ° NYCDEP appreciates the statement on page 5 of the Draft RMP which recognizes that consistent flows make the Upper Delaware one of the best canoeing rivers in the Northeast. Careful and diligent monitoring, and adherence to the Supreme Court decree by the City of New York will continue to assure visitors to the Delaware River of some of the finest water recreation in the Northeast.

20.7 The DEP would like to express its concurrence with the May 16, 1986 letter of Francis T. Schaefer, P.E., the Delaware River Master, to James W. Coleman, Jr. of the National Park Service (attached). In his letter, Mr. Schaefer points out that the experimental augmented conservation releases of 1977 on the Delaware resulted from an agreement of all parties under the 1954 Supreme Court Decree, with the added approval of the Delaware River Master. The DEP joins in the Delaware River Master's explication of the Management of releases and diversions under the 1954 decree.

Again, the DEP welcomes the opportunity to comment on the Draft Environmental Impact Statement and the proposed River Management Plan for the Upper Delaware Scenic and Recreational River.

Sincerely,



Harvey W. Schultz

c: Mr. Craig Stewart
Conference of Upper Delaware Townships
P.O. Box 41
Fosterdale, New York 12735

20.1. The final River Management Plan is consistent with the final EIS. The EIS accurately notes that the National Park Service has no authority to effect or to intervene in the flow management of the Upper Delaware River required by the 1954 Supreme Court Decree. The final plan contains no contrary statements; it does, however, urge the State of New York to continue and enhance its reservoir release program within the framework of the court decree and related operating procedures for the reservoirs.

20.2. The EIS has been changed to reflect this comment and the related views of the Delaware River Master.

20.3. Only the sections of these streams within the corridor are designated.

20.4. Changes were made in the final plan to reflect this comment.

20.5. Deleted on page 8 of the RMP.

20.6. No response required.

20.7. See item 2 above.



GERALD M. HANSLER
EXECUTIVE DIRECTOR

DELAWARE RIVER BASIN COMMISSION
P.O. BOX 7360
WEST TRENTON, NEW JERSEY 08626
(609) 883-9500

June 18, 1986

MID-ATLANTIC REGION		Initial and Date
1986		
HEADQUARTERS LOCATION		
25 STATE POLICE DRIVE		
WEST TRENTON, N. J.		
<i>[Signature]</i>		
<i>[Signature]</i>		

Mr. James W. Coleman, Jr.
Regional Director
Mid-Atlantic Region
National Park Service
143 South Third Street
Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

This letter provides Delaware River Basin Commission staff comments on the April 1986 Draft Environmental Impact Statement for the Upper Delaware Scenic and Recreational River.

General Comments

- 21.1 1. Alternative 3, Implement a modified River Management Plan, should indicate more clearly how requirements of the Upper Delaware legislation with respect to intergovernmental cooperation will be met.
- 21.2 2. Greater care should be given throughout the report to avoid references to actions or results which have no relationship to the alternatives. On page 27, under I. Sport Fishery Management Actions, reference to "existing regulations" in the first paragraph and existing state stocking programs (item (d)) are examples of things that will be done regardless of the Upper Delaware Management Plan. Another example follows on pages 28 and 29, II. Water Quality Management Action, where existing regulations are cited as part of Alternative 2, but which will be pursued regardless of a Management Plan.

Specific Comments

- 21.3 1. Page 1, B. Need. First paragraph last line. Add words in part between "controlled" and "by".
- 21.4 2. Page 13, (f), line 3. Delete word [Commission] and substitute words Fish and Wildlife Management Cooperative.
- 21.5 3. Page 27, Resource Conservation, line 1. Add words and townships between "towns" and "which". All other references to towns should include as well, townships.

Mr. James W. Coleman, Jr.

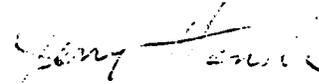
- 21.6 4. Page 36, (f) lines 2 and 3. Delete words [Basin Commission], add, Delaware River Basin Fish and Wildlife Management Cooperative.
- 21.7 5. Page 65, first paragraph, line 2. Add New York City between the words "third" and "reservoir".
- 21.8 6. Page 69, last paragraph. Throughout the report, where new data are available, they should be incorporated in the final EIS.
- 21.9 7. Page 80, 11. Fisheries, first paragraph, next to last line. Delete figure [7], add figure 8.
- 21.10 8. Page 80, second paragraph, line 2. Where is referenced map "III. 5"? If map III.5 is actually map 8, nursery habitat for shad is not shown.
- 21.11 9. Page 82, last paragraph, last line. Delete word [experimental], substitute word augmented.
- 21.12 10. Page 83, second full paragraph, line 5. The word eutrophication is used incorrectly. You may wish to consult your source.
- 21.13 11. Page 84, first paragraph, last line. Reference to map #10 should be to map #11.
- 21.14 12. Page 163, first paragraph, lines 3 and 4. Recognize that most of the major incompatible uses are reviewable by the States and the Delaware River Basin Commission. It is not likely that major incompatible uses will occur due to the lack of local regulations. The conclusion on this page should be reworded to reflect this comment, as should the discussion and conclusion related to trout on the following page.
- 21.15 13. Page 166, 2. Impacts on Water Quality, first line. It should be made clear why the analysis is based only on existing local water quality regulations.
- 21.16 14. Page 170, A. Impacts on Recreation Opportunities. There should be more recognition that threats to public safety occur now in high-density use areas, and that it is these high-use areas which require early consideration.
- 21.17 15. Page 171, second paragraph. Include the possibility that state or local governmental interests might develop new recreation facilities. (Applies also to item C, same page.)
- 21.18 16. Page 200, 1. Water flows, line 1. The reference to Chapter III/C.11 should probably be to Chapter III/C.5

Mr. James W. Coleman, Jr.

- 21.19 17. Page 235, last paragraph, line 3. Delete [Delaware River Basin Commission], substitute Delaware River Basin Fish and Wildlife Management Cooperative.
- 21.20 18. Page 256, line 3. Change reference [P.L. 87-238] to P.L. 87-328.

We appreciate the opportunity to review and comment on this Draft Environmental Impact Statement.

Sincerely,



Gerald M. Hansler

cc: Honorable George J. Kanuck, Jr.
cc: Commissioner R. Timothy Weston
Mr. Irwin King
Mr. Charles Morrison, DEC
Mr. Roger Fickes, DER
Mr. Craig Stewart, COUP
Citizen's Advisory Council
Mr. John Hutzky, NPS
Mr. Glen Eugster NPS

21.1. Section 704 of Public Law 95-625, which established the Upper Delaware Scenic and Recreational River, requires the plan to include a program for its coordinated implementation and administration. This coordinated implementation and administration is proposed to be accomplished by the Upper Delaware Council. Page 24 of the RMP and EIS describes the role of the Council. The Council will review, coordinate, and provide direction for all aspects of plan implementation.

21.2. These are included to emphasize the fact that these actions will continue regardless of the River Management Plan.

21.3, 21.4, and 21.5. Changes were made in the EIS to reflect these comments on EIS pages 27, 37, and 64.

21.6, 21.7, 21.8, 21.9, 21.10, and 21.11. Changes were made in the final plan to reflect these comments.

21.12. Usage appears correct.

21.13. Changes were made in the final plan to reflect these comments.

21.14. Changes were made in several places of the EIS to reflect this comment.

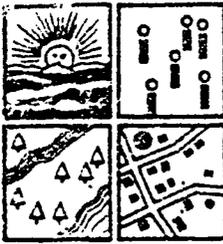
21.15. Changes were made in the final plan to reflect these comments.

21.16. This is addressed in the RMP on pages 99 and 107.

21.17. We do not envision the possibility of new public facilities under this alternative.

21.18. Changes were made in the final plan to reflect these comments.

21.19. and 21.20. Changes were made in the final EIS to reflect these comments.



**SULLIVAN COUNTY
DEPARTMENT OF
PLANNING AND
ECONOMIC
DEVELOPMENT**

MID-ATLANTIC REGION **David R. Seibert**
 Commissioner of Planning
 & Economic Development

MAY 29 1986

Director	<i>[Signature]</i>
Deputy Director	
EEO	
Public Affairs	
Plan. & Operations	
CRM	
Land	
Plan. Dev.	<i>[Signature]</i>
Administration	
Personnel	
Program	
Finance	
May 1986	
Information Mgmt.	
Commercial Act.	

Mr. James W. Coleman, Jr.
 Regional Director
 Mid-Atlantic Region
 143 South Third Street
 Philadelphia, Pennsylvania 10106

Dear Mr. Coleman:

Enclosed, for your information and use, is a copy of a review of the draft environmental impact statement (DEIS) for the Draft River Management Plan completed by the Sullivan County Department of Planning and Economic Development.

The emphasis of the review is on Sullivan County, New York State, and planning implications of the DEIS and the Draft River Management Plan. The intent was to be as constructive as possible in the hope that our comments will enable the National Park Service to prepare a final environmental statement that is better than the DEIS. With this in mind, our major conclusions are:

- 22.1 1. The National Park Service is to be congratulated for its broad and in-depth review of environmental and socioeconomic issues under the three proposed alternatives.
- 22.2 2. It is not clear how the number of towns "in conformance" with the plan was determined under the three alternatives.
- 22.3 3. The DEIS contains major errors in regard to New York State law and the type of zoning and planning regulations in existence in Sullivan County.

Thank you for providing us with the opportunity to review and comment on the Draft Environmental Impact Statement.

I have also sent this letter to Mr. Stewart.

Very truly yours,

Diane V. Carlton

Diane V. Carlton
Senior Land Use
Analyst

Enclosures

cc: w/enclosures

Mr. John T. Rutzky
Superintendent
Upper Delaware Scenic
and Recreational River

Honorable Matthew F. McHugh
Member of Congress

Honorable Benjamin Gilman
Member of Congress

UPPER DELAWARE EIS

Chapter II - Alternatives, Including the Proposed Action

B. Description of Alternatives (P.6)

Second Paragraph

22.4 How can one assume that twelve towns will "manage their river resources and develop and adopt land use regulations consistent with the RMP and the Guidelines" when only eleven currently have zoning ordinances and at least one of the eleven towns has a one acre lot minimum in the river boundary, a lot size below the required two acre minimum.

I. Sports Fishery Management Actions

P.13 Items (b) and (d)

22.5 New York State planning and zoning enabling legislation does not authorize "Conditional uses" as mentioned in this section. These sentences should mention and explain the "special use permit" procedures authorized by Section 267 of the Town Law for use by town zoning boards of appeals in New York State as well as the "site plan" and "special permit" review procedures authorized by Section 274-a of the Town Law for use by town planning boards.

II. Water Quality Management Actions

Surface Water Actions: (P.14)

22.6 (b) See comments above regarding conditional uses

Ground Water Actions: (P.15)

22.7 (c) The Realty Subdivision Law is incorrectly quoted here. Any subdivision of 5 or more parcels that are five acres or less in size must have a plan for adequate water facilities (not sewage) as approved by the New York State Health Department.

III. Scenic Resource Management Actions (P.15)

22.8 (b), (c) and (j) See prior comments regarding conditional uses

IV. Land Management Actions (P.24)

22.9 How can one assume that 12 towns will operate "in conformance with the Land and Water Uses Guidelines?" In the past the National Park Service has refused to state which towns are in conformance. This has been a major issue; many towns feel they don't want to "sign off" on the management plan prior to knowing if they are in conformance. Towns have been told they must wait for the Management Council to review their zoning prior to learning if they are in conformance. This, of course, will not occur

until after the plan has been adopted. How can the EIS now claim that twelve towns are in conformance when this information could not previously be divulged?

P.24 (6th Line)

- 22.10 The County of Sullivan has no authority to deal with any "clear and direct threats to natural resources in non-conforming towns." Other counties in New York have no authority in this area either. The word county should be removed from the sentence.

Alternative 2
Maintain Status Quo (No Action)

I. Sport Fishery Management Actions (P.28)

- 22.11 (c) Is this a synopsis of existing erosion and sedimentation controls in the river towns? It's not clear where this comes from.

- 22.12 If New York towns are included they do not have conditional use reviews. They have site plan reviews usually via the use of special permits.

II. Water Quality Management Action (P.28)

Surface Water Actions

- 22.13 (b) Same comments as above

Groundwater Actions (P.29)

- 22.14 Same comments as P. 15(c) regarding Realty Subdivision Law

Alternative 3
Implement a Modified RMP

P. 34 (Second Paragraph)

- 22.15a Why does the EIS now state that ten towns will "manage their resources in a manner consistent with the plan?" In the other two alternatives it was assumed that twelve towns would do so.

Groundwater Actions (P.37)

- 22.15b (c) same comments as P. 15 (c) regarding Realty Subdivision Law

Table II. 2 (P.50)

Estimated Level of Town Consistency with Key Selected Principles and Objectives Contained in the Land Use Guidelines

- 22.16 The chart seems to indicate that town's will amend their zoning ordinances if Alternative 1, the Proposed Plan, is adopted. What information or factual knowledge is this based on? What criteria was used to project compliance by 12 towns for each "action". In some instances nine towns would have to amend their zoning to comply with the "major objectives;" in other instances only three towns would have to amend their zoning to achieve compliance by twelve towns.

Table II. 3 (P.51) Estimated Number of Towns Prohibiting Major Incompatible Uses as Listed in the Land Use Guidelines

- 22.17 Same comments and questions as above.

III. Affected Environment

P. 13 Agriculture (P.84)

- 22.18 (4th Paragraph) "In New York State, the Agricultural Districts Law (Article 25 AA) allows counties to identify viable farmland resources..." Sullivan County identified its own agricultural districts. The State did not identify such areas for the County.

- 22.19 Map 9 shows an Existing Recreational facility in the Town of Tusten. It is identified as a NYS Cooperative Hunting Area, yet it is not detailed in Table III-4. Was it mistakenly left out or was it misidentified on the map? The area shown on the map appears to be the Ten Mile River Boy Scout property, and should be identified as such to avoid confusion. NYS Cooperative Hunting land should appear in parenthesis.

Recreation Lands (P.90)

- 22.20 (Second line) ... within the river corridor as shown on Map 9 (not 8).

Historic Resources

- 22.21 P. 103 (First Paragraph)

"National register sites, hamlets with concentrations of historic buildings.... are shown on Map 10" (not Map 9)

G. Socioeconomic Trends

- 22.22 3. Regional Housing Trends (P. 111)

The Town of Delaware did not gain a higher percentage of total housing than of permanent population between 1970 and 1980. The percentage increase for population was 23.1%. The percentage

increase for total housing units was 15.7%. In Sullivan County only Tusten's housing increase was greater than its population increase.

P. 114

22.23 Where was the information on subdivision activity obtained? No sources are quoted here or in the appendices. Was Sullivan County's "Subdivision Activity and Building Construction" report used?

22.24 What assumptions did Munley and Aronson use in arriving at a 20% growth figure per decade for second homes? In the Economic Analysis of the Draft River Management Plan Munley and Aronson gave no explanation as to how or why this figure was used. No statistical support was given. A major question to consider is whether the market for second homes will continue to be as strong as it presently is ten or twenty years in the future.

4. Land Use and Landownership

Land Use

22.25 "As shown on Map 11 (not 10) the Upper Delaware...."

Chapter IV - Environmental Consequences

22.26 This section constantly refers to the number of towns that will probably be in conformance with the land use guidelines. According to the EIS twelve of the fifteen towns will most likely be in the conformance. This seems an unrealistically high number as 1) four towns have no zoning and 2) a fifth town (Highland) has one acre zoning in the river corridor. At best ten of the fifteen towns may be judged in conformance with the land use guidelines, not twelve.

D. Alternative 2: No Action, or Continuation of Interim Management

1. Impact on the Sport Fishery

A. Impact on Shad (P. 162)

3rd Paragraph

22.27 How was it determined that new major mining operations and heavy industrial uses would continue to be precluded by local land use ordinances in approximately half of the river corridor. Were local zoning ordinances examined to see if such uses were prohibited in the river corridor? An explanation of how this figure was arrived at needs to be given.

Conclusions (P. 164)

- 22.28 Why are the Land and Water Use Guidelines mentioned here? Under Alternative 2 the RMP would not be implemented; therefore, this reference is incorrect. Fisheries would be maintained through local zoning, but not local zoning consistent with the management plan.

P. 166

2. Impacts on Water Quality

A. Impacts on Surface Water Quality

Impacts from New Residential Development (P. 166)

- 22.29 Once again, where was a figure of 65% obtained for conformance with the 2 acre lot minimum? Were local zoning ordinances examined?

Chapter V. - Consultation and Coordination

A. Development of the Draft EIS

1. Scoping (P. 196)

- 22.30 In listing the parties involved in creating the RMP, Sullivan County is not mentioned. Sullivan County has been and continues to be actively involved in the Upper Delaware Planning process.

3. Identification of Alternatives

P. 206, First Paragraph

- 22.31 The Guidelines would provide criteria and performance standards for land and water uses and identify permitted, special and incompatible uses. These are more appropriate planning terms than those given in the EIS.

Appendices

Appendix F - Land Use Regulations and Jurisdiction (P.242)

- 22.32 First Paragraph - The correct title for New York State law material that pertains to zoning is the New York Town Law's zoning and subdivision enabling legislation, not provisions.

- 22.33 Second Paragraph - "In New York, seven (not six) of the eight towns have zoning ordinances." Hancock is the only town without zoning. Not all eight towns, however, have subdivision regulations. The Town of Highland has no such regulations; therefore, only seven have subdivision regulations. "In New York the Towns

of Delaware, Tusten, Fremont and Lumberland have designated river districts. Lumberland uses an overlay district as a designated river district. Its boundaries are those designated in the 1983 plan.

The chart on page 243 has numerous errors. Corrections that need to be made are:

- 22.34a 1. The Town of Cochection has flood insurance available to it. At present the Town is in the emergency phase of FEMA's flood program which makes a town eligible for insurance.
- 22.34b 2. The Town of Highland has no subdivision regulations.
- 22.34c 3. The Town of Highland has no mobile home ordinance. The regulation of mobile homes is handled through the town's zoning ordinance.
- 22.34d 4. The Town of Lumberland has a zoning ordinance (since November 1985), and it has site plan review as well.
- 22.34e 5. The Town of Lumberland has a building inspector.
- 6. The Town of Lumberland has no junkyard ordinance.

A complete inventory of local land use controls was published by the Sullivan County Planning Department in its Sullivan County Permit Guide. It appears as Appendix D on Page 143. The National Park Services Planning Office in Laxawaxan, Pennsylvania, has a copy of the permit guide.

Page 245 - 1st Sentence

- 22.35 It should be made clear that counties update comprehensive plans at the county level. Counties do not update comprehensive or master plans at the local level. The County Planning Department will, however, assist a local town or village in updating a comprehensive plan.

"Article 12-B of the General Municipal Law requires county planning board review of any local zoning regulation, zoning amendment, special permit, variance or site plan (not subdivision plat approval) affecting, among other things, property located within 500 feet of: a municipal boundary (by listing only town boundary villages are excluded), an existing or proposed county or state park or other recreation area; an existing or proposed county or state road or existing or proposed county or state owned land on which a public building is situated." If the local agency acts contrary to the county planning board's recommendation it must also adopt a resolution stating why it acted contrary to the Department's recommendation.

P. 247

State Floodplain Management Program

- 22.36 Some mention should be made here that FEMA administers the national flood insurance program. The DEC only invokes the state floodplain management program when a municipality does not participate in the federal program. All towns in Sullivan County participate in the federal program.

P. 247

New York's "Realty Subdivision Law"

- 22.37 New York's "Realty Subdivision Law provides that any subdivision involving five or more parcels of five acres or less in size must receive approval (from a county or the state health department) of its plans for obtaining and furnishing an adequate water supply before any portion of the subdivision can be sold or before any building can be erected. Similarly any subdivision of 49 or more parcels must obtain approval from the DEC for sewage facilities.

22.1. No response required.

22.2 Pages 6 and 7 of the EIS discusses and explains the rationale for the estimate that over the planning period (20 years), 12 of the 15 corridor towns would protect their land resources and adopt land use regulations consistent with the plan and guidelines. The figures were derived by assuming that those towns which currently have local zoning and which have sought financial assistance (under the provisions of Section 704(e) of the Upper Delaware legislation) for developing local zoning would manage their river resources in a manner consistent with the RMP and Guidelines.

The estimates used in the EIS are not official determination of conformance with the plan and Land and Water Use Guidelines. Section 704 specifically provides that the Secretary of the Interior may not use land acquisition authorities contained in the law to prevent clear and direct threats to valley resources for at least two years after approval of the plan. It is during this time period that towns may choose to bring their laws, plans, and ordinances into conformance with plan and guidelines, and, thereby obviate the need for any land acquisition to prevent resource threats.

No determinations of substantial conformance have been made because of this two year period, built into the plan and functioning of the Upper Delaware Council, and also because it is proposed that the Council undertake the reviews, by contract to the Secretary of the Interior, of the laws, plans, and ordinances of local towns and make recommendations to the Secretary concerning conformance.

22.3. These errors have been corrected in the EIS and also in the plan. See specific comments to follow.

22.4. See item 2 above and pages 6 and 7 of the EIS. This is believed to be a conservative estimate used for environmental analysis purposes and is based, in part, on recent experience and trends among town governments in adopting zoning ordinances.

22.5. and 22.6. Page 13 of the EIS has been expanded to note that the correct reference in New York State, as cited by Sullivan County, is "special use permit review" or "site plan review." In Pennsylvania, the corresponding term is "conditional use". All further references in the EIS to conditional use are used generically and apply to the specific procedures in each state. The final RMP also has been changed to reflect Sullivan County's comments on this same subject.

22.7. Page 15 of the EIS has been changed to reflect this comment.

22.8. Same as 5 and 6 above.

22.9. See item 2 and 4 above.

22.10. Page 24 of the EIS was changed to reflect this comment.

22.11. This is a summary of existing actions towns are taking to continue erosion and sedimentation control.

22.12. and 22.13. See item 5 above.

22.14. Page 29 of the EIS has been changed to reflect this comment.

22.15. (a) Tables II.2 and II.3 show estimated levels of town consistency. Page 34, now states that at least ten towns will be consistent because they have zoning directly linked to the river.

(b) Page 29 of the EIS has been changed to reflect this comment.

22.16. and 22.17. The chart indicates estimated level of consistency based on existing zoning and likelihood of participation.

22.18. Changes were made on page 84 in the EIS to reflect these comments.

22.19. It was left off of the chart because it is outside of the boundary.

22.20, 22.21, and 22.22. Changes were made in the EIS to reflect these comments.

22.23. This material has been deleted from the EIS.

22.24. Statistical data relevant to second home development is not available. The 20% figure is an assumption based on Munley and Aronson's discussions with realtors, local officials and planners familiar with housing trends in the area. Coughlin and Keene's "Effects on the Land Market of the River Management Plan for the Upper Delaware Scenic & Recreational River" was also used in developing the percentage.

22.25. Changes were made in the EIS to reflect this comment.

22.26. See items 2 and 4 above.

22.27. This determination was based on analysis of existing zoning as described on page 43-44 and noted on Table II.3.

22.28. Page 26 notes that, although there would be no management plan, the revised Land Use Guidelines would be adopted.

22.29. See comment 27.

22.30. This has been changed in the EIS.

22.31. In order to avoid confusion that might be caused by the different terms used in each state (conditional use in PA and special permit use/site plan review in NY), the RMP and guidelines identify: (1) compatible uses, i.e., compatible with the designation of the Upper Delaware as a unit of the National Wild and Scenic Rivers System; (2) incompatible uses, and (3) appropriate special permit/conditional uses. The changes were made on page 206 of the EIS and elsewhere, as appropriate.

22.32. and 22.33. Change has been made in the EIS on page 253 of Appendix F - Land Use Regulations and Jurisdiction.

22.34. The chart on page 244 in the EIS had been corrected. Changes in the EIS have been made.

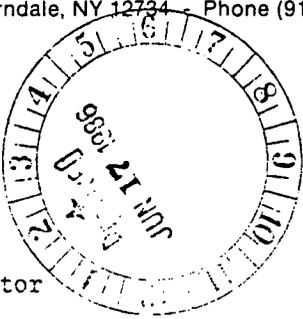
22.35. Page 256 in the EIS has been changed to reflect this comment.

22.36. and 22.37. Changes have been made on page 258 in the EIS to reflect these comments.



Sullivan County Soil and Water Conservation District
 Old Route 17 - Ferndale, NY 12734 - Phone (914) 292-6552

ATLANTIC REGION		Initial and Date
JUN 17 1986		
Director		
Deputy Director		
EEO		
Public Affairs		
Water & Leasings		
CPA		
Land		
<input checked="" type="checkbox"/> Planning & Development		
Construction		
Personnel		
Program		
Finance		
Property		
Information Mgmt.		
Commercial Acts		



June 12, 1986

James Coleman, Regional Director
 National Park Service
 143 S. Third St.
 Philadelphia, PA 19106

Dear Mr. Coleman:

23.1 After reviewing both the River Mgmt. Plan and the Environmental Impact Statement for the Upper Delaware Scenic & Recreational River we feel that COUP adequately addressed all items of interest and concern to soil and water conservation districts both in New York State and Pennsylvania.

District involvement in implementation of the mgmt. plan was clearly documented under the Water Use Program and Water Use Guidelines Sections of the Mgmt. Plan. Full cooperation from our District, in providing technical assistance to individuals and units of government in planning and implementating measures to meet the objectives set forth in the plan can be anticipated.

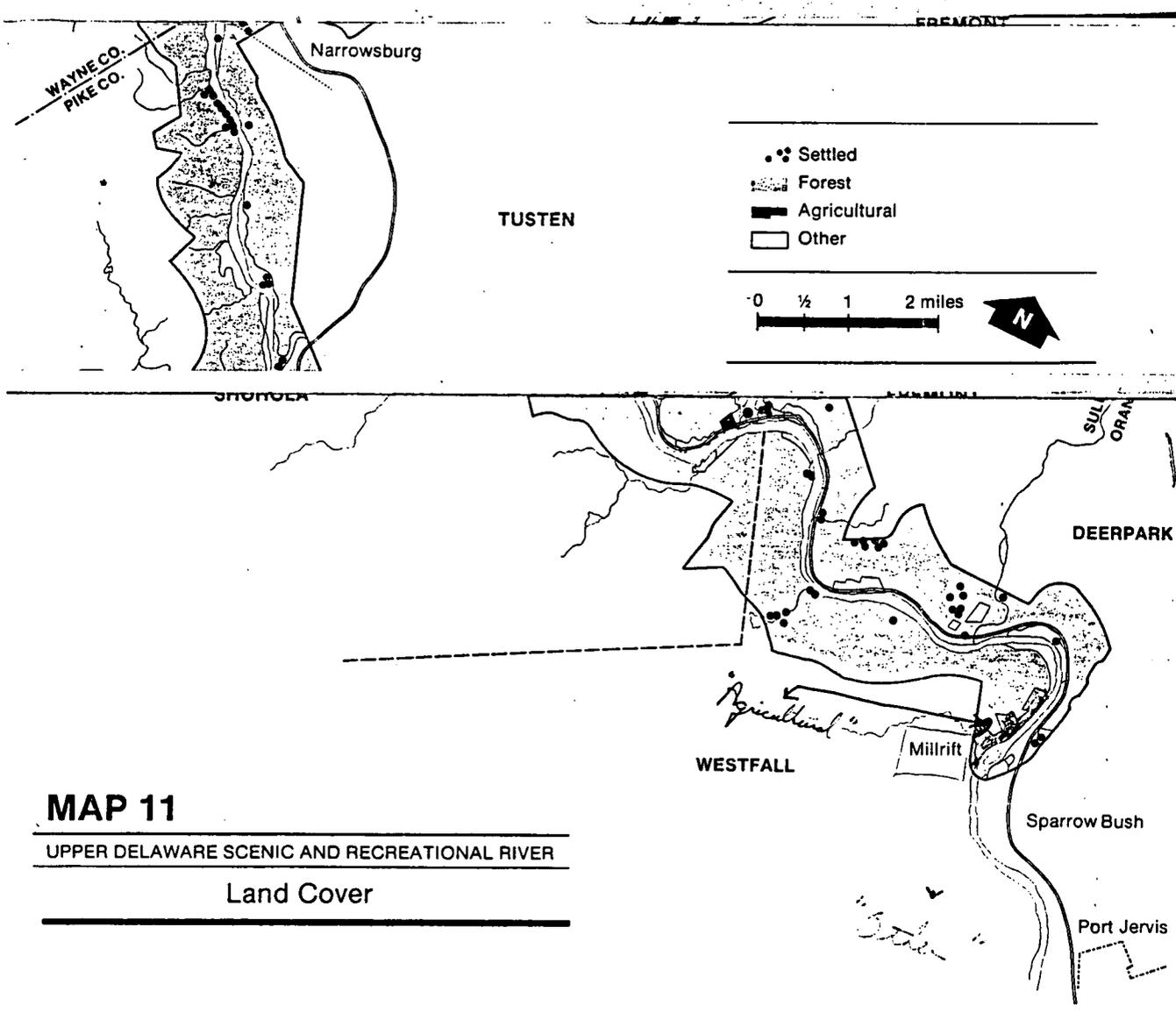
Our District is supportive of Alternative #1, acceptance of the proposed river mgmt. plan and implementation of the plan by an intergovernmental council and its' individual members.

Thank you for allowing us the opportunity to review and comment on these two documents.

Sincerely,

Robert J. Bronner
 Robert J. Bronner
 Chairman
 Sull. Co. S&WCD

23.1. No response required.



MAP 11

UPPER DELAWARE SCENIC AND RECREATIONAL RIVER

Land Cover

24.1. Map 11 was corrected.

Page 116 in the EIS describes "agricultural" as land that is in cultivated cropland "the integrity of which is devoted to dairy farming, vegetable production, and poultry raising." The same page describes "other" as "open land (river-floodplain, pastures, old fields, and vacant land).

ADIRONDACK MOUNTAIN CLUB, INC.

174 Glen
~~1722 Ridge~~ St., Glens Falls, N. Y. 12801

R. J. P. Fil



Address reply to:

Betty Lou Bailey
Schuyler 16
Netherlands Village
Schenectady, N.Y. 12308

June 19, 1986

Craig Stewart, Chair
Conference of Upper Delaware Townships
P.O. Box 411
Fosterdale, N.Y. 12735

Subject: Draft River Management Plan and Draft Environmental
Impact Statement for the Upper Delaware Scenic and
Recreational River

25.1

The Adirondack Mountain Club is pleased to submit comments on the draft River Management Plan and Environmental Impact Statement for the Upper Delaware. We are an organization of over 11,000 enthusiasts for self-propelled outdoor recreation with 28 chapters, largely in the state of New York. Ten chapters are close enough to the Delaware to conduct trips on it and be familiar with its assets and problems. These chapters are Long Island, New York, Knickerbocker (also New York City), North Jersey, Ramapo (Rockland County), Mohican (Westchester, Putnam County, NY, Fairfield County, Ct.), Mid-Hudson (poughkeepsie), Albany, Schenectady, and Susquehanna (Oneonta). Each of these chapters has its own schedule of hikes, canoe trips, cross country ski outings, etc. Most chapters as well as the "Main Club" have an active Conservation Committee whose interests center on the preservation of natural resources, such as the Delaware River.

General Approval

25.2

First, it is important to establish some structure as a means of preserving the features of the Delaware River. Since it is situated on a state line with shoreline in fifteen different towns and townships, the hosts of appreciative canoeist visitors present some irritating problems to the local community (and sometimes to other canoeists). If these problems were truly serious, the majority of towns would have established a regular police force. The unique origin of the River Management Plan by the combined efforts of the affected towns and townships is a step toward communal action on preservation of the Delaware's splendid features and the solution of river problems. It is sincerely hoped that the consensus will be to adopt the River Management Plan with its proposed Upper Delaware River Management Council. The adoption of "Alternate 3" without the support of this Council is a distant second in desirability. The Council, operating in accordance with the RMP, has the structure to tackle the various forms of anticipated problems. The RMP is quite restrictive on the land that the National Park Service can purchase and that should allay the fears of local land-owners who see the federal lands along the Lower Delaware.

THE CREED

I believe in the out-of-doors, the woods, streams and hills, the wild life that lives therein; I believe that man's care for them in a state of nature consistent with conservation is his best investment for the future.

Since the River Management Plan and Environmental Impact Statement are both drafts, we are using this opportunity to suggest changes and additions to what is generally a positive plan.

Water Quality

- 25.3 The proposed Plan and EIS include many proper concerns related to the important goal of maintaining or improving water quality. However the full interrelationship of all the factors in the River Management Plan on water quality does not seem to be fully appreciated. The plan does not mention the sanitary needs of the river users as a significant source of water pollution. While river rest areas are intended to be added at 4 - 6 mile intervals, the details of the RMP are far short of this stated goal. Furthermore, the RMP stresses educational efforts (which are already underway by the National Park Service) to urge visitors not to go ashore on private land, which is over 90% of the river bank. It is understandable that the landowners don't want their land used as informal toilet facilities, but the net effect is that the National Park Service is indirectly telling the canoeists to "use the river" since an ordinary all day canoe trip will require one trip ashore into the woods, and more if beer is taken along. Since the river is populated, a paddler slips over the side of a canoe, ostensibly to swim. The National Park Service is already stressing not going ashore onto private lands, which leaves fastidious canoeists feeling harrassed and uncooperative. The less fastidious degrade the water quality.

- 25.4 We submit that this problem is not trivial, with perhaps 3,000 - 4,000 canoeists on the river on peak days. In comparison, upgrading the septic systems by better zoning in a specific town, may only affect 100 riverside residences.

Inadequate Facilities

- 25.5 The River Management Plan calls for river rest stops every 4 - 6 miles (p.87) and river access every 8 - 11 miles (p.85). Each access area is supposed to include rest rooms. Some of the existing access areas have no rest rooms or outhouses, but none of the future plans cover the addition of any type of toilet facilities at these access areas.

No additional public access areas are planned. The Environmental Impact Statement erroneously claims on page 143 that "These sites already meet the access guidelines of one every 6-11 miles." In actuality, the access areas are distributed as follows:

25.5 Adirondack Mountain Club

3
(8-11)

Access name or area	State	River miles
Balls Eddy	Pa	335
(enter NPS territory		331)
Buckingham	Pa	325
Callicoon	Pa & NY	304
Cohecton	NY	299
Damascus	Pa	298
Skidders Falls	NY	295
Narrowsburg	NY & Pa	290
Lackawaxen	Pa	277
(leave NPS territory		258)
Matamoras	Pa	256

4 mi.
6 mi.
21 mi.
5 mi.
1 mi.
3 mi.
5 mi.
13 mi.
19 mi.
2 mi.

Thus it is obvious that seven access areas are in the 14 mile segment from Callicoon to Narrowsburg. There are two 21 mile distances between public access locations. Additional access is sorely needed at Long Eddy (mile 325) and Pond Eddy (mile 266). The Pond Eddy location is particularly important since the EIS mentions that 62% of the canoe trips are below Narrowsburg.

Similarly the rest areas (sanitary facilities) do not meet the 4 - 6 mile stated interval.

Present sanitary facilities	Mileage	Proposed new facilities
Balls Eddy, Pa	335	4
(Enter NPS territory	331)	
Buckingham, Pa	325	6
Callicoon, NY	304	21
Cohecton, NY	299	5
Damascus, Pa	298	1
Skidders Falls, NY	295	3
Narrowsburg, NY	290	5
	285	5 mi.
		Ten Mile, NY

(4-6)

Present Sanitary facilities Mileage Proposed new facilities

Lackawaxen, Pa	277	
	271	South Ranger Station
	261	Mongaup
(Leave NPS territory	258)	

Thus the distance between sanitary facilities ranges up to 21 miles apart. Below Narrowsburg there presently is only one facility in 32 miles. The intended three new ones don't fully meet the 4 - 6 mile criterion.

The sketch of the river rest area on page 87 of the RMP looks satisfactory until you consider that on a peak weekend day, something like 300-400 canoeists per hour leave Narrowsburg in mid-morning. Thus the proposed river rest area at Ten Mile River needs shoreline to beach 150-200 canoes at lunch time and sanitary facilities adequate for 400 people per hour. In reality, the small river rest area in the sketch looks fairly attractive, while the "adequate" facility just described sounds like a scene from Manhattan. Many canoeists come to the Delaware seeking a change from the crowded Manhattan environment. Thus river rest areas are needed far more frequently than 4 - 6 miles apart on the most popular sections of the river if each such area is to be kept to a reasonably small size. Current river use surveys should address this issue. Some one should, for instance, go to Pennsylvania access just below Narrowsburg and count the canoeists passing by in each 15 minute interval. If they are not going to stop on private land, they will appear at the new public rest room and picnic area 4 to 6 miles downstream. Note that while many livery canoes launch and take out at livery access areas, the users of livery canoes will use public facilities, or random private lands, while on the river.

Tent Camping

25.6

The Upper Delaware offers continuous canoeing for over seventy miles without a portage. One can readily proceed past Fort Jervis and continue on for an additional 125 miles, going through the Lower Delaware to Trenton, also without any portages. This is a superb possibility. (The Allagash requires several portages at obstructions.) The River Management Plan totally ignores this and provides for only one canoe-in future tent camping area, in the Pennsylvania State Game Lands. Thus a canoeist will essentially be restricted to starting the extensive canoe trip from the Zane Gray (Lackawaxen) access, doing only 19 miles of the Upper Delaware, and continuing on down through the Lower Delaware. It is specifically noted that the 26 commercial campgrounds are all accessible by road. Many of them are

associated with canoe liveries and do not want to service paddlers who do not use their rental canoes. (They sell a "package deal".) Furthermore, other campgrounds don't want passing canoeists to stop to fill water jugs, which is another barrier to tent camping along the river at unprepared sites if you can find one and get permission to stay, (Getting this permission is generally not practical, since an appropriate site is generally chosen on the basis that it is not near any homes.)

In the interest of maximizing the private ownership of land, it is suggested that tent camping areas (river only access) could be privately owned but leased to the National Park Service or one of the states, who could operate it for the public. The facility requirements and related investment would not be large for a landowner. The annual lease fee should make an assured return on investment. Whether or not the operating government charges a fee is not crucial to the user, but probably a fee is preferable since commercial car camping campgrounds do charge and the operating government could use the fees to cover operating expenses. On the Allagash River in Maine, a fee based on the number of overnights is charged for each person. People accept this since it seems to assure that outhouses are clean and simple campsites are in good condition and adequate in number.

Signs

- 25.7 The signs for facilities along the river, as described and illustrated on page 86 of the River Management Plan are a fine idea and would be a constructive addition to the river. In addition, we would like to suggest adding the distance to the next facility of the same sort. Examples would be "Public Access Area. Next Public Access 15 miles" and "Rest Rooms. Next Rest Rooms 6 miles". The provision for maps for canoeists is good, but not everyone will have a map, despite good efforts at distribution, so the signs for the next facility are needed.

Potable Water

- 25.8 The plan does not include any study of provisions for potable water. River rest areas will not necessarily have running water. A conscious effort should be made to provide potable water at selected distances. Upstream of Skinners Falls, 10-5 mile intervals are desirable. Downstream of Skinners Falls 5 - 10 miles apart would seem more desirable.

Conclusion

The new draft River Management Plan is a great step forward. It should do much to reassure the local people that the National Park Service isn't about to buy up their valley.

25.9 However, conflicts between private landowners and the canoeists will continue until adequate provision is made for frequent sanitary facilities, 6-11 mile public access spacing, and canoe-in tent camping areas throughout the entire length of the Upper Delaware. Canoeists from afar who hear of the impressive scenery, mild whitewater and 73.4 miles of swimmable river with no portages will assume that this is an ideal river for a one week canoe camping trip, tenting in simple fashion along the shore as they go. They will come and have bitter words about trying to camp along the river banks, staying at a commercial campground where the canoeists arrived by chartered buses, then moving to a campground full of car campers who brought radios, dogs, and other elements of city confusion to the campground. In the meantime, canoeists from both far and near continue to be frustrated when being told don't go ashore on private land. They know they must either do so or else use the river as toilet facilities.

25.10 The Adirondack Mountain Club has previously submitted comments to the National Park Service on the 1982 draft plan for the Upper Delaware and also sent an unsolicited letter to the Conference of Upper Delaware Townships in 1985. We were not surveyed as a user organization except as our members received survey forms while using the river. Because of our continuing interest in this major river with exceptional usage, we are always ready to cooperate in the review of proposed management plans. It appears that the present one has an adequate framework to deal with a variety of problems, including those mentioned in this letter, and should be adopted as the best means of cooperative management between the National Park Service and all pre-existing governments in the Upper Delaware Valley.

Betty Lou Bailey

Betty Lou Bailey, Chrm.
Canoe Route Subcommittee
Conservation Committee

cc: J.W. Coleman, Jr., NPS
N. Woodworth, ADK
Committee members
T. Miner, CCCD
C. Morrison, DEC
V. Husek, DEC

25.1. and 25.2. No response required.

25.3. and 25.4. There is no indication from any existing studies, analysis, or testing of which we are aware that recreationists are currently causing water quality problems or degradation.

25.5. The Plan Revision Committee reanalyzed the need for additional public facilities for recreation use along the river and reaffirmed earlier decisions found in the draft River Management Plan and EIS. In this regard, a key management decision for the river is that the private sector will provide most of the recreation areas and facilities. See the final RMP, specifically the water use program and the Land and Water Use Guidelines for details and further information.

25.6. The Plan Revision Committee reanalyzed and reconsidered the need and desirability for additional public tent camping areas and reaffirmed decisions found in the draft plan and EIS. No changes were made in the final plan or EIS. See the final plan for details and further information.

25.7. Page 104 of the RMP describes the maps and areas of information which will be provided to river users at access points.

25.8. No changes were made in the final plan in response to this comment.

25.9. See items 3, 4, 5, and 6.

25.10. No response required.



APPALACHIAN MOUNTAIN CLUB

FIVE JOY STREET BOSTON, MASSACHUSETTS 02108 617-523-0636

June 20, 1986

James W. Coleman, Jr.
Regional Director
Mid-Atlantic Region
National Park Service
143 South Third Street
Philadelphia, PA. 19106

Re: Draft River Management Plan and Draft Environmental
Impact Statement for the Upper Delaware Scenic and
Recreational River

Dear Mr. Coleman,

- 26.1 The Appalachian Mountain Club, founded in 1876, is the nation's oldest and largest conservation and outdoor recreation organization. The Club's 30,000 plus members, organized into thirteen Chapters which extend from Maine to Washington, D.C., actively participate in a wide range of outdoor recreation activities, including hiking, canoeing, ski touring, and bicycling. The Club's Chapters also serve as a focal point for volunteer involvement in conservation, education, and backcountry management projects.

AMC members from the Delaware Valley and New York-North Jersey Chapters have enjoyed canoeing, fishing, swimming, and hiking in the Delaware River Valley for many years. In addition, the Club has a long history of active involvement in resource management issues in this region. In 1975, for example, as part of a broader planning effort by the National Park Service, AMC prepared a detailed recreation management plan for the Delaware Water Gap National Recreation Area.

26.1 Volunteers from the Delaware Valley and New York-North Jersey Chapters along with AMC staff have carefully reviewed both the Draft River Management Plan and the Draft Environmental Impact Statement for the Upper Delaware Scenic and Recreational River. Based on the Club's site-specific knowledge of the resource as well as AMC's expertise in outdoor recreation management, we would like to submit the following comments and recommendations for your consideration.

INTRODUCTION

The Upper Delaware River is a unique ecological and recreational resource. The river and its tributaries because of their excellent water quality and free flowing condition continue to serve as important habitat for a number of sport fish species, including American shad, small-mouth bass, and brown, rainbow, and brook trout. Moreover, the adjacent forests and farmland provide excellent wildlife habitat for white-tailed deer, as well as bobcats, black bears, and wild turkeys.

Located within 150 miles of more than 31 million people, the Upper Delaware River corridor experiences exceptionally heavy outdoor recreational use. In 1982, for example, the river between Hancock and Port Jervis accounted for 12,000 angler days. Annually, the economic value of fishing along the entire Upper Delaware River approaches five million dollars.

As "one of the most outstanding canoeing rivers in the Northeast" (p. 5, RMP), the entire length of the Upper Delaware is also heavily used by canoeists and rafters. The New York State Department of Conservation estimated that

26.1 during the period from 1978 to 1982, the annual number of boating trips ranged from 20,500 (1979) to 59,000 (1980) with an annual economic value of 12.7 million dollars (1982).

In 1968, the Upper Delaware River was one of twenty-seven rivers designated for study under the Wild and Scenic Rivers Act. Ten years later, in recognition of the rivers outstanding environmental, recreational, and cultural values, the Upper Delaware River, from the confluence of the East and West branches below Hancock, New York to the railroad bridge immediately downstream of Cherry Island in the vicinity of Sparrow Bush, New York, was added to the Wild and Scenic Rivers System. Despite the on-going controversy surrounding this decision, AMC strongly supports the designation of the Upper Delaware as a Scenic and Recreational River.

In recent years, the National Park Service has worked closely with local communities as well as various interest groups to develop an acceptable Draft Management Plan for the Upper Delaware River as required under P.L. 95-625, 16 U.S.C. s1274 (2)(c)(1). The latest version of the Draft River Management Plan was released for public comment in January, 1986. AMC's comments and recommendations on this report will focus on the following issues: (1) analysis of alternatives; (2) land mangement program; (3) cultural resources management; and (4) land and water use guidelines.

1. Analysis of Alternatives

Earlier versions of the Draft River Management Plan (1983) and the Land and Water Use Guidelines (1981) which were released for public comment by the National Park Service were strongly opposed by the towns which lie within the

corridor's boundary. In 1984, in an effort to address their concerns with respect to greater local responsibility and control over the decision making process, the Park Service agreed to work closely with the Conference of Upper Delaware Townships (COUP) as well as the State of New York, the Commonwealth of Pennsylvania, the Delaware River Basin Commission and other public and private interests to develop a revised management plan and a new set of Land and Water Use Guidelines.

AMC recognizes that local support for the RMP and the Land and Water Use Guidelines is a critical factor in determining the success of this planning/management effort. We therefore support the increased role of local communities in both the planning and implementation phases of the proposed river management plan (Alternative One). Conversely, based on past experience, Alternative Three, implementation of a modified RMP with little or no emphasis on local participation in the decision making process, is a much less attractive management option. (Alternative Two, no action, is, in our opinion, completely unacceptable since as noted in the DEIS it: (1) would result in long-term degradation of key resource values; and (2) fails to conform to the Congressional mandate of the Upper Delaware Special Provisions (Section 704(c)). We hasten to add, however, that our support for the proposed plan (Alternative One) is based on the assumption that the Principles and Objectives contained in the Land and Water Use Guidelines will be stringently implemented and enforced

- 26.2 In this context, we are concerned that the limited role of the Park Service in the review process as well as the various constraints placed on land acquisition and the use of eminent domain may significantly impair their ability to monitor and enforce the Land and Water Use Guidelines. In the next section of our comments, we will identify specific

areas of concern and whenever possible suggest ways in which the RMP and the Land and Water Use Guidelines can be strengthened so as to ensure that this valuable resource will be adequately protected.

2. Land Management Program

- 26.3 The Land Management program stipulates that the review process will be carried out by the Upper Delaware Management Council. This process includes: (1) determination of substantial conformance; (2) review of ordinance amendments; (3) review of significant projects; (4) review of challenges and variances; and (5) review of enforcement programs.
- 26.4 Although there are some exceptions, many of the Land and Water Use Guidelines which are supposed to provide a framework for the determination of "substantial conformance" are so broad that consistent implementation and ultimately enforcement may be difficult, if not impossible, to achieve. While we appreciate the fact that these guidelines were written to give local communities more control and greater discretion, successful implementation of the management plan will depend on strict interpretation, implementation and enforcement of these guidelines on a case by case basis.
- 26.5 To help clarify and strengthen these guidelines, we suggest that general criteria for conditional uses and the use of substandard lots be developed, that references to alternative regulations designed to meet a particular objective include specific minimum requirements, that the alternative programs listed under each objective be reevaluated to ensure that they are both adequate and consistent, and that nonconforming uses not be allowed to expand or to convert to another nonconforming use.

- 26.6 The DEIS indicates that under the proposed management plan three of the fifteen river corridor towns would fail to manage their river resources and to develop and adopt land use regulations that are consistent with the RMP and the Guidelines. As a result, the level of environmental protection afforded by this plan will be adversely affected. Based on our review of the RMP, it appears that one reason this may be the case is that there are few, if any, incentives for nonconforming towns to conform. Specifically, eminent domain can only be used after a clear and direct threat has been identified, the town has had a 45 day period to remedy the problem, and the Management Council concurs with the Secretary of Interior that there is no other means of alleviating the threat. We urge the Park Service to evaluate other (dis)incentives which might increase the level of local conformance.
- 26.7 In both conforming and non-conforming Towns, we are pleased that the Management Council will review individual projects and variances on a case by case basis. It is critical that the Council early on in the process establish a systematic and fail-proof method to identify potentially harmful projects as well as requests for variances before the Zoning Boards of Appeal. More detail on the proposed monitoring system would be helpful in the Final Plan. In addition, AMC recommends that the Council reserve the right to review both Class I and II projects in conforming as well as non-conforming Towns.
- 26.8 Finally, and perhaps most importantly, the options available to both the Management Council and ultimately the Department of Interior to correct proposed projects in conforming Towns which are found to pose a clear and direct threat should be more clearly stated. The RMP indicates that if a Town fails to enforce it's own guidelines or alternatively grants a

variance which poses a clear and direct threat the only recourse open to the Council in an otherwise conforming Town is to notify the Secretary of Interior, "making such recommendaions as are provided for in the River Management Plan". The discussion in the RMP then goes on to suggest (See pp. 39 and 50) that the Secretary of Interior, in turn, is constrained by the results of the initial conformance review in exercising his authority to acquire land by eminent domain.

This provision would effectively preclude the use of eminent domain in conforming towns even in cases where it is necessary to alleviate a clear and direct threat caused by inadequate enforcement or implementation of existing guidelines. The right of the Secretary of Interior to exercise his eminent domain authority under Section 704(e)(4) of the Upper Delaware Segment Special Provisions (P.L. 95-625) in conforming towns which fail to adequately implement and enforce their guidelines should be clearly stated in the Final RMP.

3. Cultural Resources Management

- 26.9 The Delaware River Valley includes many fine cultural and historic resources. According to the RMP, a Cultural Resource Survey done in 1983 identified a total of 73 individual structures located within the river corridor that had potential historic significance. Most notably, Roebling Bridge, a former aqueduct of the Delaware and Hudson Canal, is part of the Delaware and Hudson Canal National Historic Landmark. AMC supports the steps proposed to protect and preserve such sites as the canal, the Roebling Bridge, and the historic buildings (DEIS, p. 100-107 and RMP, p. 74-77).

4. Land and Water Use Guidelines

AMC's comments on the Land and Water Use Guidelines will focus on principles and objectives related to: (a) protection of water quality; (b) conservation of river resources; and (c) recreation.

a. Protection of Water Quality

26.10 We are pleased that the guidelines pertaining to maintenance and enhancement of water quality include controls on clearing and construction activities on steep slopes, erosion hazard areas along ridge lines and river banks, and building lots. AMC also supports the Plan's emphasis on user education, monitoring of water quality, and the prohibition on future solid waste disposal sites in the River corridor. We urge the Park Service to clarify and strengthen the guidelines governing the use of septic systems on lots with soils that are unsuitable for septic system disposal. (The DEIS indicates that based on SCS soil classifications, only 10% of the soils in the river corridor are suitable for on-lot septic system.) Specifically, the Final RMP should address more fully the role soil performance standards, innovative technology and requirements for pretesting will play in reducing potential impacts of on-site septic systems on both surface and ground water quality.

b. Conservation of River Resources

26.11 AMC supports the restrictions and/or prohibitions imposed on major electric lines, sewage treatment plants, municipal interceptorlines, impoundments , paved four land roads and bridges, oil and gas transmission lines and

refining/production facilities, mining of uranium, disposal of high level radioactive or toxic wastes, and large-scale groundwater withdrawal projects within the boundaries of the river area established by the River Management Plan.

We are also pleased that the Draft RMP includes a list of incompatible uses, guidelines to protect water quality (see above), minimum acreage requirements for new construction, and an emphasis on education as the mainstay of a broader enforcement effort.

- 26.12 As mentioned earlier, however, we are concerned that due to the broad nature of the proposed guidelines, implementation and enforcement may be a problem in certain Towns. At a minimum, the DEIS indicates that three of the fifteen Towns directly affected by this Plan may not conform, resulting in site-specific environmental impacts. In our opinion, it is essential that the Park Service closely monitor the review process to ensure that the guidelines are being properly implemented and enforced. As part of this effort, both the Management Council and municipal governments may require long-term technical and financial assistance. In this context, the estimated annual cost to individual Towns of implementing zoning in conformance with the plan and guidelines contained in the DEIS (pp. 160-161) seem low. Some additional assistance may be needed.

c. Recreation

The Principles and Objectives pertaining to recreation focus on the need for adequate public access and recreational facilities such as campgrounds, public safety, and user education.

- 26.13 We support the proposal for more public access areas (one every 10 to 12 miles) and river rest stops (one every 4 to six miles). Although we understand that additional rest stops may be needed along more heavily used stretches of the river, we urge the Park Service to increase the total number of rest stops and public access areas so as to maintain the minimum spacing recommended in the facility guidelines. (e.g. The proposed addition of three rest stops, located in the more heavily canoed sections of the river, between Narrowsburg and Port Jervis, would average only one rest stop every 6 to 7 miles. Moreover, it appears that the actual distance between rest stops may in some cases be even greater since the proposed spacing is not even. Uneven spacing is also a problem for public access areas.) Providing adequate public access and rest stops, as recommended by the facility guidelines, may in turn require an increase in the number of acres that can be acquired for recreation facilities or administration. This should be taken into account. (The Draft RMP limits the total acreage that can be acquired for this purpose to 130 acres. The legislation permits the Secretary to acquire as much as 450 acres.)
- 26.14 The proposed Mongaup River major river contact facility (Draft RMP, p. 80) may provide viable take-out access, but its location near a significant area of white water may make it inappropriate as a take-out for serious paddlers. A public take-out area in the vicinity of the Sparrow Bush railroad bridge may be more appropriate.
- 26.15 The proposed canoe-in campground (DEIS, pp. 17-19 and RMP, p. 79) sounds attractive, but it may be too far south for a viable overnight use facility. Future studies of patterns of river use may well indicate that the mid-point for the majority of two-day trips on the Upper Delaware is

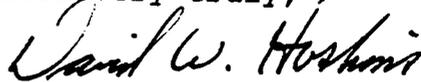
significantly farther up river. At your convenience, we would like to explore alternative locations as well as future management plans for this campground.

- 26.16 The RMP emphasizes the role of the private sector in providing recreational facilities in the river corridor. While this approach has many advantages, the Park Service and the Management Council should maintain some control over the placement, design, and management of these facilities, to ensure a quality recreational experience.
- 26.17 We support the position that no limitations should be placed on river use at this time. If further studies indicate, however, that limitations are needed to reduce conflicts among various users or to protect the river corridor and its resources from overuse, the liveries must not be allowed their quotas to the virtual exclusion of private canoes. AMC Chapters, along with other outing clubs and recreational canoeists, run canoe trips each year on the river with private or club owned canoes. This use should be preserved.
- 26.18 Finally, we support the continuation and expansion of river patrols and safety training as well as efforts to educate and inform users about river conservation and the need to respect the rights of other recreationists and landowners.

5. Conclusion

On behalf of the entire AMC but in particular the Delaware Valley and New York-North Jersey Chapters, thank you for this opportunity to comment on the Draft River Management Plan and Draft Environmental Impact Statement for the Upper Delaware Scenic and Recreational River. We look forward to working with the National Park Service and the Management Council during the review process in the years ahead.

Yours very truly,



David W. Hoskins
Conservation Director

- 26.1. No response required.
- 26.2. The River Management Plan has been changed to reflect this and similar comments providing additional details concerning the National Park Service's role in the review process. See page 50 of the RMP for details and further information.
- 26.3. No response required.
- 26.4. No changes were made in the final plan in response to this comment.
- 26.5. The Plan Revision Committee reconsidered and reanalyzed the Land and Water Use Guidelines based upon this and similar comments. A number of changes were made to the guidelines. See Land and Water Use Guidelines on pages 114-134 for details and further information.
- 26.6. As stated in the Land and Water Use Guidelines, a most basic purpose of the guidelines is to foster and encourage a cooperative partnership approach to conserving and enhancing valley resources. Thus, the plan emphasizes incentives to all levels of government and private citizens to meet mutually beneficial goals and objectives, one of which is to achieve the purpose of Section 704. Disincentives are not included in the plan, per se, because that would be counter to the intent of developing a partnership between the various levels of government.
- 26.7. No changes were made in the RMP in response to this comment. It is anticipated that the operating procedures of the Council will address these concerns.

26.8. Changes were made in the plan and guidelines to provide additional details and clarify the relationship of potential adverse and direct threats in the corridor to the land acquisition authority in Section 704. The role of the Upper Delaware Council in the process of exercising the authority was also clarified. See the pages 56 and 57 in final RMP for details and further information.

26.9. No response required.

26.10. No changes were made in the RMP or guidelines in response to this comment.

26.11. No response required.

26.12. See item 2 concerning the National Park Service's role on the Upper Delaware Council. The National Park Service provides financial assistance to towns to assist them in developing local zoning ordinances. The Upper Delaware Council would also provide financial and personnel services.

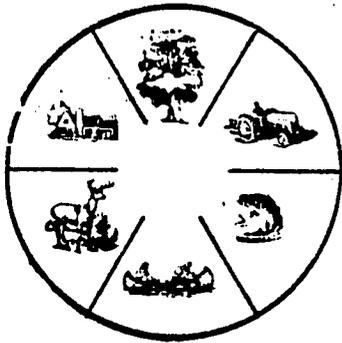
26.13. The Plan Revision Committee reanalyzed the need for additional public facilities for recreationists along the river and reaffirmed earlier decisions found in the draft River Management Plan and EIS. In this regard, a key management decision for the river is that the private sector will provide most recreation use areas and facilities. See final RMP, specifically the water use program, and the Land and Water Use Guidelines for details and further information.

26.14. The RMP identifies the location of the southern visitor center in general terms, ie., in the vicinity of the Mongaup River. The specific location will be determined at a later date depending, in part, on a willing seller, access, topographic constraints, river safety concerns, and environmental concerns.

26.15. No changes were made in the RMP in response to this comment.

26.16. No changes were made in the RMP to reflect this comment.

26.17 and 26.18. No response required.



Upper Delaware Citizen's Advisory Council

P.O. Box 84
Narrowsburg, NY 12764

June 19, 1986

Mr. James W. Coleman
Regional Director
National Park Service
Mid-Atlantic Regional Office
143 South Third Street
Philadelphia, PA 19106

ATTENTION: M. Gordon, Assistant Regional Director

Dear Mr. Coleman:

- 27.1 Attached for your review are comments concerning the Upper Delaware River Draft Management Plan of January 1986, as well as comments regarding the Draft Environmental Impact Statement for the Upper Delaware Scenic & Recreational River.

You will note that these comments have also been submitted to the Conference of Upper Delaware Townships.

If you should have any questions concerning this document, please do not hesitate to contact me at 914-856-5266, or our Secretary, Carla Hauser, at 717-729-8251.

Sincerely yours,

Karen G. Ridley

Karen G. Ridley
Chairperson

UPPER DELAWARE CITIZENS ADVISORY COUNCIL
COMMENTS ON APRIL 1986 DRAFT ENVIRONMENTAL IMPACT STATEMENT

Table II, Alternative #3

- 27.2 Page 48, there is a statement that this alternative assumes approximately 10 townships would manage the resource in a manner generally consistent, but it does not stipulate how many towns would be needed to cut the difference between alternative #1 and alternative #3.
- 27.3 A decision should be made as to how many town must participate, what version of a plan will be implemented based on what criteria, and how long implementation will be undertaken prior to a final decision, prior to the revision.
- 27.4 It is time for the National Park Service to stipulate what will happen after the revision process is complete.
- 27.5 Ms. Ridley made an interesting observation that alternative #1 and #2 quite possibly provide more protection: i.e., alternative #1 indicates 85% of the corridor would be protected, while alternative #3 points out 75% of the corridor would be included.
- 27.6 The way the EIS reads, 7340 acres of land could be acquired in five town/ships. If that is true, many criticisms are warranted. This needs to be revised to include the qualifier--100 acres per river mile, 50 acres on each side of the river.

Page 47, Fishing Access Sites

- 27.7 Mrs. Howson expressed concern about fishing access sites, explaining that fishers must trespass over people's property to get to the river in many points. Additionally, she stressed that seven miles is a good trip for an average paddler (she is a paddler).
- 27.8 Serious concern was expressed over the fact that there was no mention, nor provision, for impacts due to trespass from the CONRAIL right-of-way, as well of the possible impact of the transport of toxic and caustic waste by CONRAIL through the corridor.
- 27.9 Additionally, there is concern regarding the impact of minibikes and other similar vehicles along the CONRAIL right of way. It is understood that CONRAIL has an enforcement division, but that for the most part their regulations against trespassing are not enforced.

27.1. No response required.

27.2. Tables II.2 and II.3 show the difference between Alternatives 1 and 3 with respect to the number of towns consistent with the Plan and Guidelines.

27.3. This comment relates to the final RMP and the proposed Upper Delaware Council. In this regard, it is anticipated that many towns will choose to join the Council. The proposed final RMP is the preferred alternative in this EIS; implementation of the plan will begin 90 days after it has been approved and transmitted to the appropriate committees of Congress. See the final RMP for details and further information.

27.4. The plan review process is complete. The proposed plan will be submitted to the Secretary of the Interior for a decision. If approved, it will be transmitted to the Congress.

27.5. No response required.

27.6. Pursuant to Public Law 90-542 and Section 704 of Public Law 95-625, a maximum of 7,340 acres might be acquired in towns not in conformance with the plan and guidelines, provided that such acquisitions are further limited to those lands clearly and directly needed for the purposes of Section 704. The acquisition could only occur at locations which meet all of the requirements of Section 704 and of the final RMP. The specific acreage figure (7,340) is derived from multiplying the river mileage on the Upper Delaware, 73.4 river miles, by the 100-acre per river mile standard found in Public Law 90-542.

27.7. All public access sites will provide for such access without requiring or in any way encouraging trespass on private lands. The final RMP identifies the problem of trespass on private lands as a concern to valley residents. The plan proposes several actions to address the problem. See final RMP for details and information. The water use program in the final RMP proposes access areas every 10-12 miles and river rest stops every 4-6 miles (one area might provide both).

27.8. The final RMP was not changed in response to this specific comment. However, the plan contains several recommendations to deal with trespass problems.

27.9. See item 8 above.

27.10 See page 101 of the RMP for further information on the strand.

27.11. The analysis on page 24 of the EIS, and similar analyses elsewhere, do not relate, per se, to participation on the Upper Delaware Council. Rather the estimate is made that a certain number of towns may not be in conformance with the plan and guidelines. The commentator is correct; it is possible for a town not to join the council but still take actions consistent with the plan and Land and Water Use Guidelines, excepting participation on the council.



JUN 27 1986

June 19, 1986

National Park Service
Mid-Atlantic Region
James W. Coleman, Jr., Regional Director
143 South Third Street
Philadelphia, PA 19106

Re: Comments on the Draft Environmental Impact Statement (DEIS)
for the Upper Delaware Scenic and Recreational River

Dear Mr. Coleman:

Columbia Gas Transmission Corporation (Columbia) has reviewed the above referenced DEIS which was published in April, 1986, and would like to comment on a portion of the document.

28.1 Columbia operates and maintains a natural gas transmission pipeline in areas which are proposed to be regulated as park land (see attached map). This operation and maintenance includes right-of-way (ROW) mowing, periodic inspections and routine repair and/or replacement to segments of the pipeline. These functions must be performed to provide safe and reliable service to our customers. In addition, Columbia has valid rights to construct a second pipeline on its existing ROW which it will exercise should natural gas demand warrant.

28.2 As you are aware, Mr. Robert Welch of Columbia Gas System Service Corporation has previously submitted a written statement on Columbia's behalf commenting on the DEIS of 1982. Those comments, for the most part, have not been specifically addressed in the current DEIS. Further, the intent of certain portions of the DEIS and River Management Plan (RMP) are not clear. Specifically, on page 12 of the DEIS, it states that "Existing land uses would not be affected". However, on page 23 of the same DEIS, section VI.(b), it states that gas transmission lines would be considered incompatible and, thus, prohibited. Finally, on page 115 of the RMP, gas/oil fields and lines are listed as appropriate conditional uses, however, on page 114 of the RMP, it states that new oil and gas transmission lines will not be located within the river corridor.

28.3 Clearly, these passages are inconsistent with Columbia's obligation to provide safe and reliable service to its customers and to exercise its previously negotiated rights to install additional facilities in this corridor.

National Park Service
J. W. Coleman, Jr.
June 19, 1986
Page Two

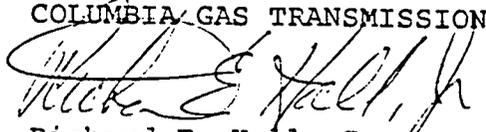
Therefore, Columbia respectfully requests that the Conference of Upper Delaware Townships and National Park Service clarify its definition of existing land use patterns regarding utility corridors such that the aforementioned rights and obligations are not infringed upon. Specifically, such clarification might include the following:

- 28.4a 1) On page 11 of the DEIS, include an item #12 stating -- Provide for the operation and maintenance of existing utility corridors.
- 28.4b 2) On page 23 of the DEIS, remove gas transmission pipelines from the listing of incompatible uses.
- 28.4c 3) On page 115 of the RMP, list utilization of existing utility corridors for future replacements and/or additional facilities.

Columbia is willing to discuss this matter in more detail. Please contact me at 716-375-4310 should you have any comments regarding this matter.

Very truly yours,

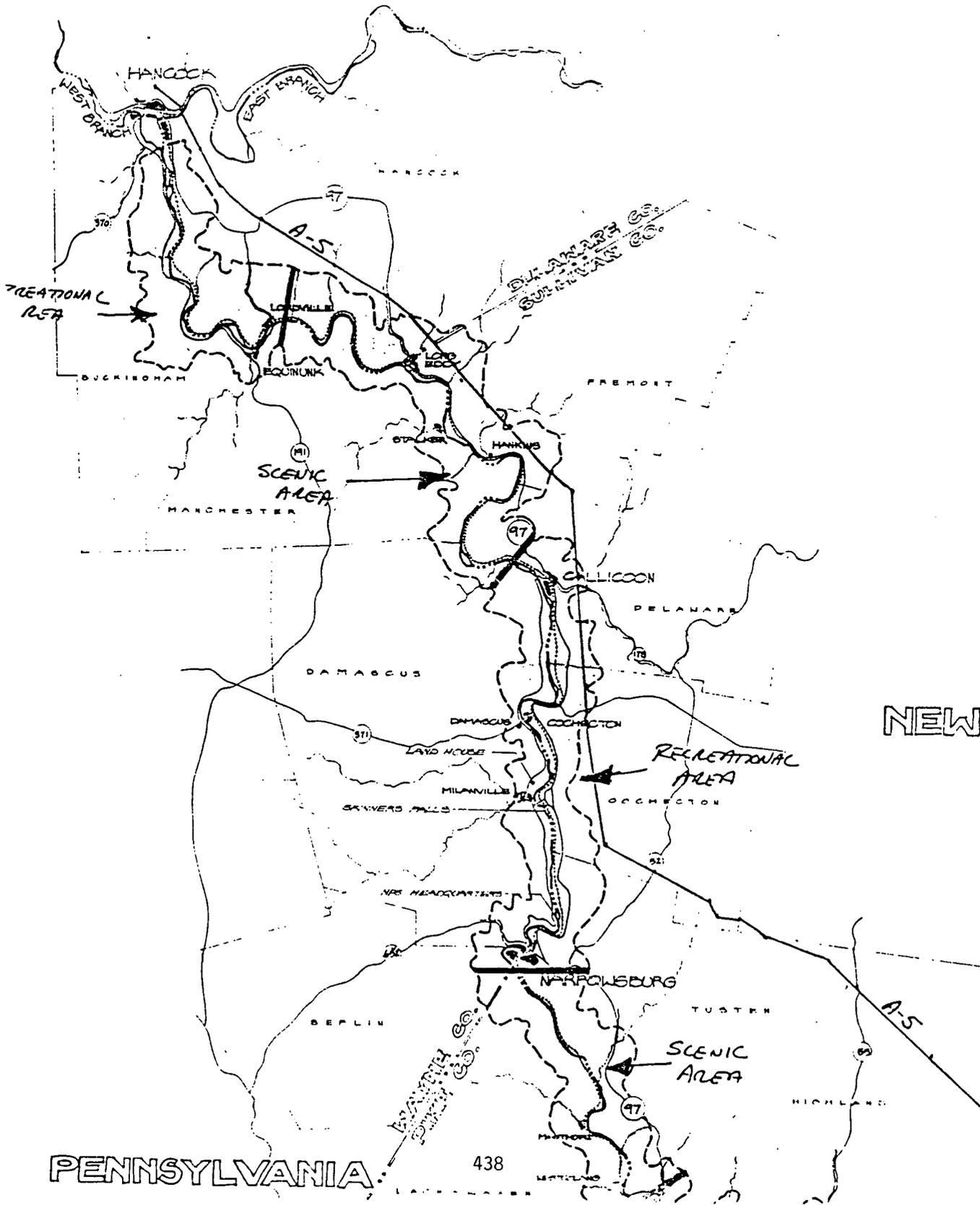
COLUMBIA GAS TRANSMISSION CORP.


Richard E. Hall, Jr.
Ecologist

REH:mg

Attachment

cc: T. Spiegel
F. Decker
D. Riggs
R. Hansen
File



28.1. No response required.

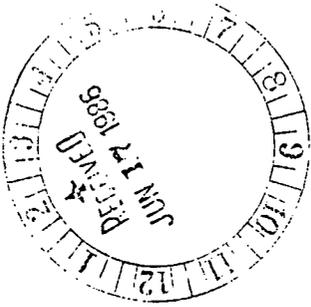
28.2. At the request of the commentor, changes were made in the River Management Plan to specifically note that maintenance of existing utility rights-of-way is not affected by the guidelines, nor is the construction of additional pipelines along existing rights-of-way.

28.3. No response required.

28.4. (a) The 11 listed items are objectives taken directly from the Land and Water Use Guidelines. It would not be appropriate to add the suggested item 12 because it is not an objective of the guidelines, per se, although as noted in item 2 above, the operation and maintenance of existing utility corridors is appropriate.

(b) The reference to incompatible uses refers to new such uses as stated in the RMP on page 128. All existing uses are not directly affected by the plan or guidelines.

(c) See item 2 above.



DELAWARE OTSEGO AUDUBON SOCIETY

P. O. BOX 544
ONEONTA, NEW YORK 13820

MID-ATLANTIC REGION		DATE
JUN 17 1986		TIME
<input type="checkbox"/>	Director	
<input type="checkbox"/>	Deputy Director	
<input type="checkbox"/>	CEO	
<input type="checkbox"/>	Public Affairs	
<input type="checkbox"/>	Management Operations	
<input type="checkbox"/>	DESA	
<input checked="" type="checkbox"/>	Lands	
<input checked="" type="checkbox"/>	Plan - Development	
<input type="checkbox"/>	Administration	
<input type="checkbox"/>	Personnel	
<input type="checkbox"/>	Programs	
<input type="checkbox"/>	Finance	
<input type="checkbox"/>	Property	
<input type="checkbox"/>	Information Mgmt.	
<input type="checkbox"/>	Commercial Acts	

6/12/86

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

Dear Mr. Coleman:

This letter is in comment on the Draft River Management Plan and Draft Environmental Impact Statement for the Upper Delaware Scenic and Recreational River.

- 29.1 The Delaware-Otsego Audubon Society covers an area in close proximity to the proposed boundaries of the river corridor, with both members who reside nearby and those who use the river regularly. This, in conjunction with our interest in the state of the environment of the entire region is the basis for our comments.

We have followed the proposed plans for river management since the designation of the river as Scenic and Recreational. We have commented on previous plans and have communicated with legislators on the issue. Hence, we are well aware of the controversy surrounding previous plans, and the argument that they did not provide sufficient local participation in river management. In large part, we agreed.

- 29.2 However, the current proposal swings the pendulum too far in the opposite direction. The Upper Delaware Management Council, as envisioned, is by its very makeup, no more than an extension of the town governments. Considering that the Council, through its assigned powers, permeates all areas of the Management Plan, this bias is unwise and unfair to the multitude of other interests concerned with the river. The entire tenor of the Plan reflects protection of localities and retention of local control, not protection of the river and its resources as intended by the original legislation. Surely it is not to be expected that such an unbalanced Council will place the interests of the river ahead of the interests of localities, particularly with such a document to guide them. The Plan stresses cooperation, but it will only be possible at the discretion of the Council.

The basic matter of the Council reviewing actions of the very towns

2.

they represent precludes any objective assessment of these actions. In addition, the provision regarding use of eminent domain by the National Park Service handcuffs the federal government in using this tool. Certainly there should be safeguards against abuse, but the powers of the Council to stop any proposed use are too restraining. Also, to require that land acquired and resold under eminent domain count toward the maximum acreage authorized for acquisition is illogical. If the land is resold, with restrictions on incompatible uses, it is not acquired. Once the authorized acreage is reached, this requirement would allow future incompatible uses on other parcels since eminent domain would not be available as a protective device. This is not what the legislation intended.

The Wild and Scenic Rivers Act speaks of protecting rivers for the benefit and enjoyment of present and future generations. The Park Service would be derelict in its responsibility to carry out enacting legislation for the Upper Delaware if it were to turn over management of the river corridor to the Council as proposed. The concept of a Management Council composed of representatives of the towns and other governmental entities is sound, but the imbalance should be corrected. The simplest way to achieve this may be to increase the number of voting members by allowing representatives of involved state and federal agencies to serve on the Council. Also, citizen and environmental groups should be represented. A 50-50 balance between town representatives and other governmental and outside interests would be equitable. This would also allow for individuals with expertise in various disciplines to serve.

- 29.3 The changes in the boundaries of the river corridor in the proposed plan do not reflect the "ridge-to-ridge" concept of the enacting legislation, nor do they provide sufficient protection for land and water resources essential to the river. The boundaries are drawn to arbitrary, not scientific standards, and hence exclude important features such as wetlands and tributary valleys that have direct and indirect effects on the river. The original boundaries are the minimum necessary to allow valley-wide protection of resources.
- 29.4 The Fisheries and Wildlife section of the Plan is the best indication of the short shrift given non-game wildlife in both the Plan and the EIS. The objectives do not make conservation and protection of non-game species a priority, as they should be. They emphasize hunting, fishing and trapping; popular, but certainly not universal pastimes. This objective should be added, to serve as a guide for future actions by the Management Council. The EIS continues this omission and emphasis on fish and game. The potential impacts of increased recreational use and development on non-game species and particularly on threatened and endangered species are not adequately considered. This should be remedied in the final EIS.

The Unique Land Resources section of the Plan envisions total voluntary protection for these valuable landforms. Unfortunately,

29.1. No response required.

29.2. No changes were made in the final plan in response to this comment.

29.3. The modified boundary encompasses the Upper Delaware valley defined as a distinct topographic unit. Its lateral boundaries are the ridgelines which define the valley; the criteria used for the boundary is consistent with Section 704 of Public Law 95-625 and all planning studies which led to that legislation.

29.4. Pages 13 and 70 in the final RMP were changed in response to this and similar comments. See RMP for details and further explanation.

29.5. and 29.6. No changes were made in the final plan in response to these comments.

29.7. Changes were made in the plan on pages 117 and 118 in response to this and similar comments.

Delaware Valley Forestry Service

FOREST AND WILDLIFE MANAGEMENT

P.O. BOX 127

CALLICOON, N.Y. 12723



TIMOTHY J. HOFFMANN

(914) 887-4647

June 5, 1986

James W. Coleman Jr. - Regional Director for the N.P.S.
Mid Atlantic Region
143 S. 3rd St.
Philadelphia, PA 19106

Craig Stewart
Conference of Upper Delaware Townships
P.O. Box 41
Fosterdale, NY 12735

Re: Comment on the draft River Mgt. Plan & the draft Env. Impact Statement

Dear Sirs:

I represent Delaware Valley Forestry Service. I am an approved NYS cooperating consultant forester and a graduate from the College of Environmental Science and Forestry in Syracuse, NY.

30.1

On page 4 of the Draft River Management Plan, it states " the Upper Delaware Valley offers some of the best hunting and trapping opportunities in Pennsylvania and New York. Wildlife biologists recognize the river valley as an excellent hunting area because its combination of diverse habitats produces abundant wildlife populations." The Upper Delaware Valley is also noted for its northern hardwoods which support a thriving industry. These hardwood forests produce thousands of cubic feet of veneer logs, sawlogs, millwood, and pulpwood each year. They are also the resource base for a lucrative and growing recreation industry, the habitat for a variety of game animals and other wildlife, and a protective cover for this watershed which serve many local towns.

30.2

On page 113 of the Draft River Management Plan, it states " prohibiting clear cuts over two acres in size or making them conditional uses within the river corridor, subject to a professional forester's review, with exceptions for agricultural purposes and wildlife management programs of the type conducted by the States."

30.3

My comment for review is: Two acre clear cuts impose a silvicultural, ecological, and economical hardship for private landowners and hunting clubs. Also, placing clear cuts under conditional uses creates an unnecessary burden (see conditional use page 118 of the Draft River Management Plan) because local state and county conservation and

agricultural services presently offer assistance in this area.

30.4

Under the Forest Practice Standards published by the NYS Department of Environmental Conservation Division Of Lands and Forests (LF-P220 3/84) it states on page 4 that, "low quality sites will still support a stand of merchantable timber, but the rotation age for sawlogs is extended and the volume and quality of timber is relatively poor. These sites are best suited to extensive management. A diameter limit, or clear cut system is often recommended for stands occupying these sites."

30.5

It is of my professional opinion that the Delaware River Corridor is composed generally of low quality sites. Shallow soils, steep slopes, and pestiferous conditions have created the need for extensive management.

30.6

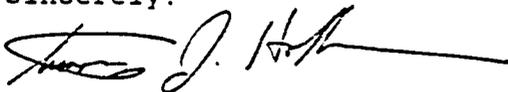
Clear cuts in the river corridor should be NO LESS THAN 10 ACRES in size. A clear cut less than 10 acres will be over browsed by game animals and natural regeneration of merchantable sawtimber will be extremely stunted. Furthermore, clear cuts less than 10 acres are economically not feasible for today's commercial harvesting practices.

30.7

Aesthetically, many people prefer selection cutting because a residual stand always covers the site and disturbance from logging is less apparent. However, few intolerant trees are reproduced by selection cutting, and, unless the cutting is very heavy, so as to result in an abundance of undergrowth, little browse may be produced for game animals. Selection cutting only will result in a decrease of our deer herd. This would substantially have an adverse effect on the hunting as a recreational industry in this area.

Please respond to this letter by mail or phone.

Sincerely:



Timothy J. Hoffmann - Consulting Forester

30.1 and 30.2. No changes were made in the final plan in response to these comments.

30.3. The guidelines do not suggest that clear cuts over 2 acres be prohibited. Clear cuts may instead be approved as a conditional use subject to a professional forester's review. See page 123 of the RMP.

30.4 and 30.5. No changes were made in the final plan in response to these comments.

30.6 and 30.7. See 30.3 response.

National Audubon Society

MID-ATLANTIC REGIONAL OFFICE
1104 FERNWOOD AVENUE, SUITE 300
CAMP HILL, PA 17011
(717) 763-4985



2 June 1986

TO: Interested Parties
FROM: National Audubon Society
Mid-Atlantic Regional Office
SUBJECT: Upper Delaware River Management Plan

31.1 Enclosed for your review is a copy of National Audubon's comments on the Draft River Management Plan and Draft Environmental Impact Statement for the Upper Delaware River.

If you have questions about these comments please contact Tom Troy at (717) 763-4985.

TDT:lg

Encl.

MID-ATLANTIC REGION	Initial and Date
JUN 11 1986	
Director	
Deputy Director	
ED	
Public Affairs	
Management Operations	
UN	
MS	
Plan - Implementation	
Administration	
Accounting	
Personnel	
Finance	
Property	
Information Systems	
Commercial Sales	

[Handwritten signature: Tom Troy]

National Audubon Society

MID-ATLANTIC REGIONAL OFFICE
1104 FERNWOOD AVENUE, SUITE 300
CAMP HILL, PA 17011
(717) 763-4985



2 June 1986

Mr. Craig Stewart, Chairman
Conference of Upper Delaware Townships
P.O. Box 41
Fosterdale, NY 12735

Dear Mr. Stewart:

- 31.2 The National Audubon Society appreciates this opportunity to comment on the Draft Management Plan and the Draft Environmental Impact Statement for the Upper Delaware National Scenic and Recreational River. This Plan represents the combined effort and commitment of many interested and concerned people and we commend them all for the time and effort spent on this important issue.

We have some general comments and then will proceed with a more detailed review with references to parts of the Plan or DEIS which we feel need attention.

GENERAL COMMENTS

As one of the nation's oldest and largest conservation organizations, National Audubon's interest in the Upper Delaware River focuses primarily on fish and wildlife resources, threatened and endangered species, habitat preservation, and issues which relate to wetlands and water quality. There are five local Audubon chapters in the Delaware Valley in New York and Pennsylvania. Our regional and national staff has worked closely with representatives of these chapters during the planning process and this review represents our collective thinking at this time.

- 31.3 The development of a plan for use of public lands must always strike a balance between over-regulation and control by government agencies and haphazard growth and development which can occur due to a lack of planning and land use controls. The unique cooperative relationship between the Council of Upper Delaware Townships (COUP) and the National Park Service (NPS) has tried to strike that balance. Previous plans by the Park Service were rejected because they were too restrictive. We think this Plan needs work because it is too permissive. In our view the Plan does not give the Upper Delaware River the necessary long-term protection which is required by the Wild and Scenic Rivers Act. When economic development is concerned, there have been too many instances in the past where voluntary regulation simply has not worked. We do not want to see this sad scenario occur on the Upper Delaware River. We encourage COUP and NPS to negotiate and try to find a compromise between this Plan and former ones.

UPPER DELAWARE MANAGEMENT COUNCIL

31.4 We have serious reservations about the structure of the Upper Delaware Management Council as described on pp. 17-27 of the draft Plan. Our chief concern is that 15 of the 19 members of the Council are representatives from Townships which are sure to have economic development of the River as a primary interest. State and federal agencies and the Delaware River Basin Commission collectively have only four seats on the Council, yet they are expected to fund most of its activities (p. 20, bottom). This is not fair or balanced. The selection of Council members should be more equitable and it should include several individuals who are skilled in subjects such as biology, hydrology, river ecology, soil science, and the impacts of river recreation on natural resources.

PROJECT BOUNDARY REVISION

31.5 COUP'S proposal to revise the landward boundaries of the project (as described on pp. 52-55, see maps) is unacceptable. First, to alter the project boundaries as identified in the original Upper Delaware legislation should not be done without appropriate scientific studies and ecological data. This information has not been provided. Reducing the acreage will remove from protection wetlands and swamps which are important for flood control, as aquifer recharge areas, and as wildlife habitat.

Second, we agree that "the most critical, vulnerable areas are those that drain directly into the River" (p. 53). In that same paragraph (paragraph 2, Landward Boundaries, p. 53) you make an excellent case for why the watershed should receive valley-wide or ridge-to-ridge protection. Why, then, do you propose to remove 29,000 acres from protection?

We strongly urge COUP and NPS to reinstate the landward boundaries laid out in the original Upper Delaware River Study or to present solid scientific arguments as to why the boundaries should be changed.

WATER RESOURCES MANAGEMENT

31.6 We commend COUP for its inclusion of regular water quality monitoring throughout the River Corridor as an objective of the Water Resources Management section (p. 59). This section is basically good. However, more attention should be given to ways of preventing nonpoint source pollution (i.e. run-off pollution) which will intensify as development continues in the Valley.

Regarding nonpoint source pollution, we also note that at several places in the Plan there is reference to continuing traditional agricultural and timbering activities in the river valley. Keep in mind that some traditional agricultural practices such as animal feedlots near streams or rivers, and the overuse of fertilizers and pesticides, can contribute greatly to nutrient enrichment and subsequent degradation of water quality. Some timbering practices can result in soil erosion and sedimentation. It may be time to reassess some of these traditional uses of the land to avoid run-off pollution and its impact on water quality.

FISH AND WILDLIFE RESOURCES

31.7 The management objectives outlined on pp. 62-63 need to be amended and expanded. Our primary concern is that all four objectives focus on the consumptive harvesting of either wildlife or natural resources. You consistently refer to maintaining "the traditional and historical uses of the lands and waters of the river corridor for hunting, fishing, trapping and commercial taking of eels and bait."

The National Audubon Society is not opposed to hunting, fishing, or trapping if done in a fashion that is biologically sound for the wildlife population which is being harvested. However, this determination should be made scientifically, not on the basis of "tradition". Making decisions based on tradition implies that what was good 50 years ago is good today. If this were true we wouldn't need a new Management Plan for the Upper Delaware River.

We question why only game species have been considered under the Fisheries and Wildlife section on pp. 62-63 of the Plan. What about the tens of thousands of people in New York and Pennsylvania who would rather observe wildlife than fish or hunt? Why is there no mention of birdwatchers, hikers, and photographers in the Plan? These user groups also contribute to the economy and vitality of the Delaware Valley. They should be given equal consideration in the Plan.

To further emphasize the need to include nongame species in the Plan, COUP should be aware that both New York and Pennsylvania have initiated very successful state programs designed to protect nongame, threatened, and endangered species. We encourage COUP to contact the individuals who direct these programs. The names of the appropriate people to contact have been attached as an appendix to these comments.

THREATENED AND ENDANGERED SPECIES

31.8 More emphasis needs to be given to the management of endangered and threatened species in the Plan. Your recommendations on pp. 66-67 represent a minimal effort.

Attention needs to be given not only to federally listed species but also species which have been listed by state agencies in New York and Pennsylvania. In the USFWS Consultation letter (DEIS, Appendix B) Mr. McCoy recommends that you contact appropriate individuals in New York and Pennsylvania state agencies. Has that been done? If so, are copies of those responses available to the public? Shouldn't they be included in the DEIS?

Your reference to the potential loss of bald eagle habitat on pp. 202-203 of the DEIS is most disturbing. Bald eagles are finally making a comeback in Pennsylvania and New York as a result of reintroduction efforts. These reintroductions have required many years of hard work by wildlife biologists and a considerable expenditure of funds by both states. To describe the loss of any bald eagle habitat as insignificant or minor is most disturbing. If anything we should be looking for ways to give the Hawks Nest area additional protection.

One way of giving additional protection to potential endangered species habitat might be to ensure that the most sensitive habitat areas are designated as "scenic" rather than "recreational". This will afford more protection for species like bald eagles, ospreys, peregrine falcons, and endangered plants by minimizing their interaction with humans.

31.9 We are disappointed to find no mention of the osprey in either the Plan or the DEIS. Considerably resources have been expended by state agencies and private organizations in recent years to re-establish the osprey as a breeding bird along the Delaware River. This has been a high-priority project for our members and one that depends on suitable nesting habitat along the River. For more information about the Pennsylvania Osprey Reintroduction Project, contact Dr. Larry Rymon at East Stroudsburg University. His address and phone number are included in the appendix.

In summary it is unacceptable to dismiss the importance of an endangered or threatened species because it no longer lives in an area. If suitable habitat exists, extirpated species will return to an area either on their own or with assistance from wildlife biologists.

UNIQUE LAND RESOURCES

31.10 The Delaware River Valley contains many unique land areas that are environmentally and ecologically sensitive. Too little attention has been given to their protection and preservation in the Plan. Without greater protection many of these unique areas will degrade or even disappear as development pressures increase. Scenic segments must be kept inviolate with no further development activities allowed (see p. 115, principal and conditional uses). Nothing should be permitted that will change the present character of these areas. In fact, we encourage the possible redesignation of some "recreational" segments as "scenic" so they will receive greater long-term protection.

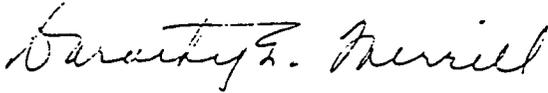
SUMMARY

31.11 On behalf of 50,000 Audubon members in New York and 19,000 members in Pennsylvania, we respectfully submit these comments for your consideration. We plan to continue to work with COUP and NPS toward the solution of problems in the Upper Delaware Valley that will assure the area residents of their rights and maintain the natural integrity of the area. We support orderly growth and development in those areas where it is acceptable (i.e. not in the Scenic segments). Our highest priority is to insure that the Upper Delaware River will be preserved for the benefit of future generations as Congress intended when it included the River in the Wild and Scenic River System.

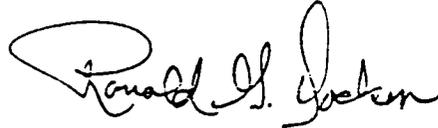
Page -5-

Thank you for the opportunity to participate in this important process. Please do not hesitate to contact us if you have questions about these suggestions and comments.

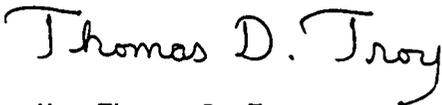
Sincerely,



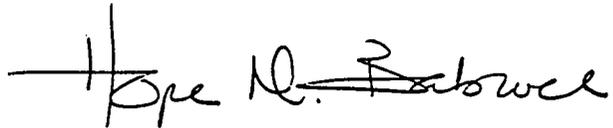
Mrs. Dorothy Merrill
National Audubon Society Representative
on Plan Oversight Committee



Mr. Ronald G. Dodson
National Audubon Society
Northeast Regional Representative



Mr. Thomas D. Troy
National Audubon Society
Mid-Atlantic Regional Representative



Ms. Hope Babcock
National Audubon Society
Director of Public Lands and
Counsel
National Capitol Office

cc: Congressman Matthew F. McHugh
Congressman Benjamin A. Gilman
Congresswoman Marge Roukema
Congressman Joseph M McDade
Interior Secretary Donald P. Hodel
National Park Service Director William Penn Mott
National Park Service Mid-Atlantic Regional Office
Pennsylvania Department of Environmental Resources
New York Department of Environmental Conservation
Audubon Chapter Presidents in the Delaware River Valley

APPENDIX

For more information about the nongame and endangered species program in New York contact:

Mr. Henry G. Williams, Commissioner
NY Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233
(518) 457-3446

For more information about the nongame and endangered species program in Pennsylvania contact:

Mr. Frank Felbaum, Executive Director
PA Wild Resources Conservation Fund
P.O. Box 1467
Harrisburg, PA 17120
(717) 783-1639

For more information about the Pennsylvania Osprey Reintroduction Project contact:

Dr. Larry Rymon, Professor
Department of Biology
East Stroudsburg University
East Stroudsburg, PA 18301
(717) 424-3714

31.1 Voided number.

31.2 No response required.

31.3. No changes were made in the final plan in response to this general comment.

31.4. No changes were made in the final plan in response to this comment. See final plan for details on the functions, staffing, and budget of the Upper Delaware Council.

31.5. The Plan Revision Committee reconsidered the proposed modified boundary, based upon numerous comments received on the subject; the Committee reaffirmed the criteria -- direct drainage -- for the proposed final boundary. The final RMP contains a detailed description of the boundary criteria and the rationale for it. The modified boundary incorporates the Upper Delaware River valley, defined as a topographic unit. This boundary criteria is consistent with the 1978 legislation and all earlier planning studies that preceded that legislation.

31.6. The Land and Water Use Guidelines encourage sound agricultural and forestry practices, and they suggest alternative methods for dealing with potential, associated problems, including non-point source pollution. These alternative methods include making such uses, in some instances, conditional uses in order to address potential impacts of runoff and waste. See Land and Water Use Guidelines for details and further information.

31.7. The final River Management Plan was changed to reflect this comment.

31.8. Additional information on the bald eagle has been incorporated in the final eis; this includes an impact analysis on the species of each of three alternatives, see Chapter IV, items C (7), D (7), and E (7).

Officials in the New York Department of Environmental Conservation and Pennsylvania Game Commission were contacted concerning endangered species identified by the states. The information obtained is summarized on pages 77-79 of the EIS. Further information can also be found on page 212 of the EIS.

31.9. There is an ongoing program to restore osprey in Pennsylvania, The Osprey ReIntroduction Program. The program is sponsored by the Pennsylvania Game Commission and National Audubon Society, and administered by East Stroudsburg University. The goal of the program is to restore the extirpated population of osprey using hacked birds. Osprey have been observed in the Pond Eddy and Shohola area. Six osprey nests have been established throughout the Pocono Plateau, in Northampton, Monroe, Carbon, and Luzerne Counties. Establishment of these nests marks the first successful attempt in this country for restoring extirpated osprey populations. There are no known osprey nesting sites in the Upper Delaware Corridor.

31.10. The Plan and Guidelines provide for land use activities consistent with scenic river segments and preclude incompatible land uses. See pages 133 and 134 of the RMP.

31.11. No response required.

32.1. No changes were made in the final RMP or EIS in response to this comment. As stated on page 50 of RMP, any acquisition for recreation and visitor use management (124 acres in the final plan) will be on a willing-seller/willing-buyer basis.



SIERRA CLUB

Pennsylvania Chapter

P.O. Box 135

Cogan Station, PA 17728

Reply to:

Mary Vieregg
P.O. Box 1311
Scranton, PA 18501

June 17, 1986

COMMENTS ON THE UPPER DELAWARE RIVER MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT:

33.1 The Sierra Club's goals in the Upper Delaware planning process have paralleled both the wishes of the majority of landowners and the intent of the federal legislation as it was passed by the U.S. Congress in 1978. In the words of the Wild and Scenic Rivers Act, we have been working toward a plan by which the Upper Delaware and its environment "shall be protected for the benefit and enjoyment of present and future generations."

We have supported the planning process with appropriate comments and participation. Members of the Club who are also valley landowners have spent hundreds of hours attending long and frustrating planning meetings and public hearings, and effort has been made to keep the many Club members living within close proximity of the valley informed on the issues involved.

We applaud the efforts of the National Park Service in opening up the planning process even though the democratic process has not always worked well or fairly in this setting. We also commend the Service for the good work it has already done along the Upper Delaware under difficult conditions. We appreciate this opportunity to comment upon the latest draft management plan for the Upper Delaware.

The Management Council

33.2 We are supportive of the proposed local management council if local citizens are willing and able to act as conscientious stewards of the valley. If they are not, we would support the National Park Service as the coordinating managing entity.

If the local management council does in fact assume responsibility of implementing the plan and guidelines, it should be made clear that

the Secretary of Interior is directed by law to ultimately review the council's actions and ensure proper implementation of the law. As stated by Anthony R. Conte, Regional Solicitor for the Northeast Region of the U.S. Department of Interior (in a letter to the Mid-Atlantic Regional Director on November 22, 1985),

The Secretary may accept the professional advice and recommendations of any appropriate state or local body but he may not commit himself in advance to decline to exercise his own discretionary review of the subject."

This point is important because we have justified doubts as to the ability of the local management council to carry out its responsibilities without its local constituency understanding the legislative mandate to do so. Its members will be under extreme pressure to vary from the guidelines set forth in the plan, and the integrity of the plan will be sorely tested if council members can not fall back on the more distant removed authority of the federal government.

33.3

In the same context, we strongly recommend the inclusion of time limitations for problem resolution. The entire planning process has been characterized by delay. Similar delays in dealing with environmental threats to the valley and substantial nonconformance to the plan will dramatically reduce the plan's effectiveness in accomplishing its goals.

Boundary Changes

33.4

We are strenuously opposed to the broad-scale reduction in acreage covered by the plan. In almost all cases, the boundary line shifts are environmentally unsound. In some cases, they cut through wetlands of considerable size and ecological value. In other locations, they exclude critical areas of direct drainage into the Delaware River.

The protection of the outstanding water quality of the river is not only a primary goal of the national scenic rivers program, but also of primary importance to landowners as indicated by the 1984 and 1986 survey responses. The plan itself addresses on page 53 the importance of direct drainage areas especially those found in areas of steep slopes where soil erosion potential is high. The importance of wetlands "for water quality protection, aquifer recharge, natural



33.4

flood mitigation, and erosion control...(and)wildlife habitat" is noted on page 61 of the draft Environmental Impact Statement. And yet, such areas are consistently excluded by the boundary modifications.

Specific examples:

- 1) The following primary tributaries have been "determined by New York's Department of Environmental Conservation to be fishery areas which have a direct relationship to the values of the designated river area." (p. 3 - Plan) However, the extent of their inclusion within the boundaries has been substantially reduced:
 - a) Basket Creek - upstream to the confluence of the East and North Branches
 - b) Hankins Creek - upstream to the impassable barrier at Mileses
 - c) Callicoon Creek - upstream to the confluence of the East and North Branches
 - d) Mongaup River - upstream to the impassable barrier at the Rio Dam

In addition, the area cut out in the Basket Creek area is very scenic, steeply sloped, and includes wetlands.

- 2) "All tributaries on the Pennsylvania side of the river, except for the Lackawaxen River, have been designated as "exceptional value", "high quality", or "coldwater fishery" by the Commonwealth of Pennsylvania under the state Clean Streams Law". (p. 3 - Plan) And yet,
 - a) the steeply sloped, direct drainage area of Stockport Creek has been excluded.
 - b) Direct drainage areas of Beaverdam Creek near Damascus have been excluded.
 - c) Direct drainage areas of Calkins Creek near Milanville have been excluded.
 - d) the steeply sloped, direct drainage area of Shohola Creek has been excluded.
 - e) the steeply sloped, direct drainage area of Twin Lakes Creek has been excluded.
 - f) the steeply sloped, direct drainage area of Pond Eddy Creek has been excluded.

Numerous wetlands have been cut out including Dunn Swamp in Hancock Township, a large wetland area in Damascus Township, and wetlands west of Masthope.

Coal Flats in Manchester Township, a direct drainage area of significant scenic value, has also been excluded.

There may indeed be legitimate modifications to be made in the 1978 boundaries, but they should be based on defensible environmental criteria and objective resource protection goals. Section 704 of Public Law 95-625 requires that the river management plan describe



any proposed modifications to existing boundaries and the reasons for making the changes. The one-line explanation on p. 54 attributing the changes to "more accurate and precise topographic mapping" is inadequate given the wholesale changes that have been made.

Land and Water Use Guidelines

33.5

The proposed land and water use guidelines should be strengthened considerably if traditional land uses are to be sustained. This section of the plan is critically important since strictly enforced land-use regulations are the primary defense for protecting the resources of the Upper Delaware. As proposed, the zoning guidelines for both "scenic" and "recreational" river segments actually restrict very little, and variances are not discouraged.

Scenic areas: The Wild and Scenic Rivers Act defines scenic river areas as "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". Only about 25 miles of the 73 mile long corridor are designated as "scenic" in the plan, and the protection given these areas in the guidelines is totally inadequate relative to the definition of a scenic area.

Specifically, the shorelines remaining largely undeveloped and primitive should preclude the new building of garden apartments, townhouses, sawmills, cluster developments, boarding homes, schools, seasonal residences, single family homes, greenhouses, churches, and the bed and breakfast places allowed in the guidelines. Mining operations and junkyards should also be disallowed. These types of development are inconsistent with the very definition of a scenic area.

For all sections of the river, the setbacks from the high water mark, the minimum lot size, and the minimum lot width have been reduced in the proposed guidelines. The proposed guidelines allow twice as many lots in the recreational sections and five times as many lots in the scenic sections as the 1981 guidelines, and they allow buildings to be built one-third closer to the river. (The only positive addition to the guidelines is the required vegetative buffering in front of structures and a minimum distance between structures along the ridge.)



If carried to completion, the development along both scenic and recreational stretches would yield a river corridor little better than suburban in character. Along with the lot development will come increased erosion and sedimentation, variances for sewage handling, and a general degradation of water quality in the river.

33.6

Forestry practices: The proposed guidelines on logging practices in the river corridor effectively allow unrestricted activity. The proposed definition for "clear-cutting" would alone allow any harvester to avoid clear-cut regulations by simply stating that the cutting was for "wildlife management" or by leaving a few low value trees (a common forestry practice).

The reliance on "industry standards" and "state regulations" is particularly illusory since none are cited. According to the Pennsylvania Bureau of Forestry, no state laws regarding clear-cutting exist in the commonwealth, and individual "industries" driven by individual economic needs (not resource conservation) determine their own clear-cutting practices. The only constraint on clear-cutting in Pennsylvania is the Erosion and Sedimentation Plan required for areas over 25 acres in size by the County Conservation Districts.

We urge the adoption of guidelines using the more acceptable definition of clear-cutting given in the 1981 guidelines but extending the cutting cycle to 15 years (as is the PA Bureau of Forestry policy on state forest lands). We would also concur with the Catskill Center recommendation that all clear-cuts over two acres in size must have a plan for reforestation or stabilization of the property after cutting, and that the maximum clear-cut should be 25 acres. The other 1981 forestry guidelines should be retained as written.

If land and water use guidelines do not seriously provide a vision of what the corridor should be like, laissez-faire economic development inspired by short-term profit motive will yield a landscape unwelcomed by the majority of valley residents and a degraded river ecosystem inconsistent with the intent of the law.

Variances: While there is a need for flexibility in implementing land use guidelines, the granting of variances should be discouraged in the plan. On the contrary, the plan bends over backward to assure town governing bodies that they can grant variances on a regular



basis (p. 108 and 109). The same is true for the approval of conditional uses.

33.7

The plan should make clear that a pattern of consistently granting variances from the requirements contained in land use ordinances based on the approved guidelines will be interpreted as avoiding "substantial conformance". It should be underscored that while

the Secretary of the Interior will contract with the Upper Delaware Management Council for the review of relevant local plans, laws and ordinances and for the initial determinations and recommendations as to whether they "substantially conform" to the River Management Plan and these guidelines (p. 108),

the Secretary can not delegate his ultimate authority to determine whether the intent of Congress is being carried out.

33.8

The Secretary of Interior should review land use measures as soon as possible after expiration of the 2-year minimum prescribed by the law so that towns will be assured of their compliance. Periodic review thereafter should be written into the plan to ensure enforcement of zoning requirements without the excessive granting of variances.

Easements

33.9

Conservation, scenic, and agricultural easements are discouraged in the proposed plan. They are allowed only as a last resort alternative to acquisition, when a land use is proposed that poses a threat to the river, and then only after every other alternative has failed (p. 45). Even the definition given on p. 125 is woefully inaccurate and misleading. This is a disservice to those landowners a well administered easement program would benefit.

Easements involving either the sale or donation of the right to build on a parcel of land to the National Park Service or a nonprofit organization would allow land to remain in private ownership and on the tax rolls. They also permit the continuation of existing land uses that are compatible with river conservation objectives.

The plan should not restrict the use of easements. It should instead encourage their use to help farmers in the valley survive economically, reward sportsmens' clubs wishing to maintain the scattered forest land within the river corridor, and compensate landowners who



wish to see the present use of their undeveloped land continue.

The fear of easement programs along the Upper Delaware is unfounded, but it is perpetuated by the plan as it is presently written. The plan should include an intelligent and coherent explanation of easement programs, and the National Park Service should take a lead in encouraging their use.

NPS Land Acquisition

33.10

The option for the National Park Service to acquire the full 1450 acres allowed by the enabling legislation should be retained in the plan. Acquisitions will undoubtedly be limited because of budget restrictions and local resistance, but the option should not be foreclosed. The acreage could be reserved for easement purchases and other willing seller situations, but the option should definitely be reserved to accommodate landowners wishing to see their land protected in perpetuity.

Summary

33.11

The planning process for the Upper Delaware Scenic and Recreational River is in its eighth year. During that time, Orange County, New York has become the fastest growing county in the state. Sullivan County is growing at twice the state rate. Wayne and Pike Counties are among the fastest growing in Pennsylvania. Whether the inevitable changes along the Upper Delaware will be palatable to long-time residents and future generations will depend largely upon the willingness to direct them through an overall management plan.

It is now time to adopt a plan with meaningful land and water use guidelines and the management resolve to enforce them. It is essential for the protection of the valley and the social well-being of its residents that the uncertainty cease. We urge the National Park Service and Congress to expedite the review and revision process, and begin protecting the river valley in earnest.



33.1. No response required.

33.2. The final Plan has been changed to reflect this and similar comments.

33.3. The final plan has been changed to reflect this and similar comments. Timeframes are included in the plan for review and actions by the Upper Delaware Council and the National Park Service.

33.4. The Plan Revision Committee reconsidered the proposed modified boundary, based upon numerous comments received on the subject; the Committee reaffirmed the criteria -- direct drainage -- for the proposed final boundary. The final RMP contains a detailed description of the boundary criteria and the rationale for it. The modified boundary incorporates the Upper Delaware River valley, defined as a topographic unit. This boundary criteria is consistent with the 1978 legislation and all earlier planning studies that preceded that legislation.

33.5. The Land and Water Use Guidelines are based on the management principles found in Public Law 90-542, the Wild and Scenic Rivers Act, and the Department of the Interior's "Guidelines for River Areas" in the National Wild and Scenic Rivers System. Section 704 also provides that the plan is to provide "for as broad a range of land and water uses and scenic and recreational activities as shall be compatible with the provisions of this section, the Wild and Scenic Rivers Act, and the general guidelines for land and water use controls promulgated by the Secretary..." Section 704, the Land and Water Use Guidelines have as their specific purposes, in part; a) to protect and enhance the unique characteristics of the Upper Delaware River valley; b) to protect, encourage and promote the

continuation of existing traditional land and water uses; and c) to identify those future uses which would substantially conform to these guidelines, those uses which, with conditions, would be deemed to conform and those which would not conform. Within this framework, the Land and Water Use Guidelines provide for those traditional land uses in the valley which are consistent with sound resource protection and the values for which Congress added the river to the National System, reference the Schedule of Compatible, Conditional and Incompatible Uses. The guidelines do not, and cannot, preclude all new land use activity in the river corridor.

The environmental impact statement documents and analyzes land use development trends, with projections for the next 20 years. It is anticipated that the Upper Delaware valley landscape in 20 years will be similar to existing patterns and conditions, see Chapter IV of the EIS.

33.6. No changes were made in the Land and Water Use Guidelines in response to this comment. The objective in the guidelines on page 122 of the RMP is to "provide for the use of sound timber management practices within the corridor." Alternative methods are suggested under this objective emphasizing conditional use review, see final plan and guidelines for details and further information.

33.7. The final plan and Land and Water Use Guidelines have been changed in response to this and similar comments.

33.8. No changes were made in the final plan in response to this comment. The final plan contains time frames for the review of land use measures.

33.9. No changes were made in the final plan in response to this comment. The final plan encourages the use of voluntary private actions in the implementation of a comprehensive approach to river management. Such actions could include the use of conservation easements.

33.10. The final plan limits National Park Service acquisition to the identified 124 acres. No further acquisition could occur without amending the plan. See pages 26, 27, and 50 of the Plan.

33.11. No response required.

RMP file



EAST JERSEY CHAPTER P.O. Box 366—Hohokus, NJ 07425
Stream Improvement • Speakers • Classes • Companionship

MID-ATLANTIC REGION		Initial and Date
JUN 27 1986		
Director		
Deputy Director		
CEO		
Public Affairs		
Admin. & Operations		
CFM		
Lands		
Plan. Development		
Recreation		
Programs		
Program		
Public		
Property		
Information Mgmt.		
Commercial Acts		

June 18, 1986

National Park Service
James W. Coleman Regional Director
143 South 3rd Street
Philadelphia Pennsylvania 19106

Dear Sir:

34.1

I would like to add my comments to the draft EIS and draft RDS for the Upper Delaware National and Seneca Rivers.

I firmly believe that the river be part of the National Wild and Scenic River system and that deauthorization of the river not even be considered.

Protection of the river as a national ecosystem should receive the highest priority. Preservation of water quality and wildlife habitat are as important as economic growth and development.

Sincerely

James W. Coleman

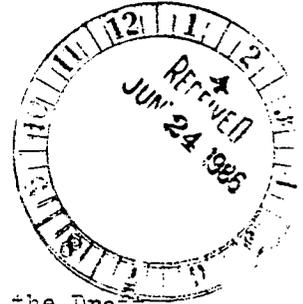
Conservation Coordinator

34.1 No response required.

Ellis

1809 Wren's Nest Road
Richmond, Virginia 23235
June 18, 1986

Mr. James W. Coleman, Jr.
Regional Director, Mid-Atlantic Region
National Park Service
143 South 3rd Street
Philadelphia, Pennsylvania 19106



Dear Mr. Coleman:

- 35.1 I have reviewed the Draft Environmental Impact Statement and the Draft River management plan for the Upper Delaware Scenic and Recreational River. My interest in this subject stems from the fact that I grew up near Philadelphia and I hope to see the Upper Delaware (as well as the lower reaches) preserved so that my small children and the children of others may one day enjoy the qualities which caused it to be designated as a National Wild and Scenic River.
- 35.2 Of the three management schemes presented in the Draft EIS, the proposed plan (Alternative 1) appears to offer the most sustainable balances between competing interests. Either this plan or the Modified Plan (Alternative 3) would preserve the river's environmental values, while the Status Quo (Alternative 2) would impair them. To me, the Park Service's possible acquisition of as much as 7,340 acres of land for resale with restrictive deed covenants is an attractive feature of Alternative 3; but I can see where it would be taken as criticism of local management efforts. I think the less active Park Service role under the proposed plan is more likely to produce federal-local comity, and I would hope this comity will offset the absence of Park Service authority to take decisive corrective action. (Acquisition under the proposed plan is limited to 130 acres, for non-corrective purposes.)
- 35.3 The governance of river resources in the Draft River Management Plan appears workable, albeit somewhat complex. With respect to Upper Delaware Management Council review of Class II projects, however, the Plan indicates (page 41) that the town or township reviewing such projects need not await the comments of the Council before making decisions. Inasmuch as Council comments do not bind the town or township, it would seem appropriate to make the latter wait for comments or else to provide the Council a reasonable deadline for comments, after which the town or township may act. This seems particularly important for these localities since the provision presupposes that they are not in substantial conformance with the legislation, the Plan, or the Land and Water Use Guidelines.
- 35.4 In general, I am in favor of the proposed Management Plan. Much hard work, thought, and honest bargaining are obviously behind it, and the Draft EIS shows the excellent work which is customary for the Park Service.

Thank you for the opportunity to comment.

Sincerely,

Charles H. Ellis III

Charles H. Ellis III

cc: Mr. Craig Stewart,
Conference of Upper Delaware Townships

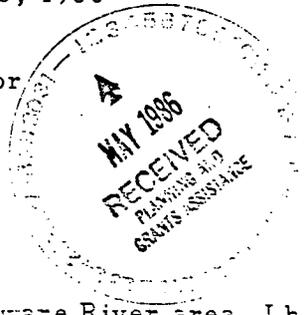
35.1. and 35.2. No response required.

35.3. Changes were made in the final plan on page 45 to reflect this and similar comments.

35.4. No response required.

61 Beechwood Road
Cradell, N.J. 07649
April 28, 1986

RECEIVED		Date
APR 30 1986		
Director		
Deputy Director		
ESD		
Public Affairs		
Wildlife & Fisheries		
USFS		
Land		
Planning & Administration		
Records Management		
Training		
Public Relations		
Telephone Room		
Director's Office		
Miss Gandy		



United States Department of the Interior
National Park Service
Mid-Atlantic Region
143 South Third Street
Philadelphia, PA 19106

Gentlemen:

As a property owner in the Upper Delaware River area, I have received your April 1986 "Draft: Environmental Impact Statement of the Upper Delaware Scenic and Recreational River".

It is a comprehensive report covering many aspects of a long diversified stretch of the Delaware Valley. In the interest of contributing to the improved accuracy of the Final Edition, I would like to make the following observations in regard to the Fish Spawning map.

36.1

The most significant tributary to the Upper Delaware River from the PA side is the Lackawaxen River. Yet the map covering this aspect does not show any fish spawning on this river. On page 126, the Lackawaxen has been specifically omitted as a quality coldwater fishery. This is inconsistent with the hundreds of fishermen who can be seen on the river on Saturday mornings in April and May. They cover a long stretch of over ten miles from the bridge crossing in Lackawaxen to the confines of Hawley upstream. The State of PA may stock the river, but the main source of fish is naturally spawned.

On the other hand, there are many smaller creeks such as Panther Creek in Shohola which are known to be dry during the summer. Yet the map shows fish spawning up to the dam on the creek. The elevation of the dam spillway is over 100 feet above the creek bed a few hundred feet downstream. There are high waterfalls in this area and an unlikely spawning area.

Similarly, on larger Shohola Creek, there is a 70 foot tall dam on top of a 300 foot rise in the creek bed over a mile and a half. I have never seen more than one fisherman at a time fishing in this stretch. Yet the map shows a spawning area beyond these natural and artificial barriers. Not only do fish not spawn in the ascending area, they spawn very little in the impounded area behind the dam. I have literally noticed over 100 boats who have returned to the boat launch area in mid-morning only to report no success in their early-morning fishing efforts. Nor have I ever seen a good fish caught in this lake.

I suspect that because the impounded area includes many decaying trees and other vegetation, the chemical reaction caused is not conducive to fish spawning. I would like to see the State of PA clean these trunks out of there. They are a hazard to all forms of boating, particularly the increasingly popular inflatable rafts. My raft became dirtiest from boating in Shohola Lake than in a dozen other local lakes and waterways. If the tree stumps were taken out of there, more water could be impounded and the area could also be used for bathing and water skiing.

2.

In summary, I would recommend you consider the inclusion of the Lackawaxen River in the spawning area and the removal or shortening of the spawning area in the other smaller waterways in the area. I hope that these comments have proven helpful.

Sincerely yours,



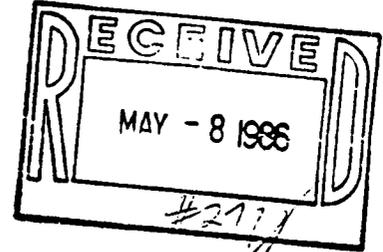
Matthew N. Gillan

cc: State Of PA
Fish Commission

State of PA
Bureau of State Parks

State of PA
Bureau of Water Quality Management

36.1. According the Pennsylvania fishery biologists, natural spawning does not occur on the Lackawaxen but may occur on the other creeks and streams noted.



Mr. Craig Stewart, Chairman
Conference of Upper Delaware Townships
P.O. Box 41
Fosterdale, NY 12735

Dear Mr. Stewart:

I would like to request that a correction be made in the Draft Environmental Impact Statement for the Upper Delaware, dated April 18, 1986.

- 37.1 I refer you to page 22, #10. I am the owner of the Lackawaxen Aqueduct Abutment, and therefore am disturbed to see the "PA. Dept. of Transportation" listed in the "ownership" column. Please change that ownership to read "Private". I also suggest that you correct the spelling of Lackawaxen.
- 37.2 Please note that the Draft River Management Plan (January 1986) mentions (page 76) only that "brush cutting should be done on a voluntary basis." There is no mention of "public access", and I request that this management item in the EIS (page 22, #10) be deleted. This is private property, and I do not wish to assume the liability for public access.

I would appreciate your cooperation in making these changes.

Sincerely,

A handwritten signature in cursive script that reads "Rita Kuhn".

Rita Kuhn

37.1. and 37.2. Changes were made on page 22 in the EIS to reflect these comments.