US Army Corps
of Engineers
Baltimore District

Notice of Availability

JENNINGS RANDOLPH LAKE MASTER PLAN 1997 UPDATE AND INTEGRATED ENVIRONMENTAL IMPACT STATEMENT

ALL INTERESTED PARTIES:

The U.S. Army Corps of Engineers, Baltimore District, has prepared the Draft Jennings Randolph Lake Master Plan 1997 Update and Integrated Environmental Impact Statement (EIS) to address potential future development at, and to update the NEPA documentation for the operation of, Jennings Randolph Lake, Garrett County, Maryland, and Mineral County, West Virginia. In accordance with the National Environmental Policy Act (NEPA), the District is conducting public coordination and distributing the documents for public review and comment. The public review and comment period for the Draft Master Plan Update and Integrated EIS will begin on July 31, 1997, and end on September 16, 1997.

Jennings Randolph Lake is located on the North Branch of the Potomac River in Garrett County, Maryland, and Mineral County, West Virginia, approximately 8 miles upstream of Bloomington, Maryland, and approximately 5 miles north of Elk Garden, West Virginia. The dam is a multi-purpose project authorized for flood protection, water quality, recreation, and water supply.

The 1995 Energy and Water Development Appropriations Act (Public Law 103-316, 108 Stat. 1701, dated 26 August 1994) authorized the Jennings Randolph Lake Master Plan 1997 Update. The original Master Plan for Jennings Randolph Lake was completed in 1973. The current update reevaluates the assets, needs, and potential of the project. The 1997 Master Plan Update reflects changes that have occurred to the site, in the region, in recreation trends, and in Corps policy in the years since the original Master Plan was completed. The purpose of the update is to provide a guide for the use and development of natural and constructed resources on Corps fee-owned lands at Jennings Randolph Lake. The Master Plan is the basic document guiding Corps responsibilities pursuant to Federal laws to preserve, conserve, restore, maintain, manage, and develop the project lands, waters, and associated resources.

The Draft Master Plan has been prepared in accordance with Engineering Regulation (ER) 1130-2-550, dated November 1996. This regulation prescribes "an overall land and water management plan, resource objectives, and associated design and management concepts" that provides the "best possible combination of response to regional needs, resource capabilities and suitabilities, and expressed public interests and desires consistent with authorized project purpose." Additionally, as specified in the regulation, the Master Plan contributes to "providing a high degree of recreation diversity within the region;" emphasizes the "particular qualities, characteristics, and potentials of the project;" and exhibits "consistency and compatibility with national objectives and other state and regional goals and programs." The decision to implement the proposed future development at Jennings Randolph Lake is based on an evaluation of the probable impact of the proposed activities on the environment, as well as public interest. Factors being considered include regional economics, general environmental concerns, wetlands, cultural resources, flood hazards, fish and wildlife resources, flood plain management, land use, recreation, water supply, water quality, aesthetics, energy needs, regional and local infrastructure, hazardous and toxic materials, public health and safety, food and fiber production, and the general needs and welfare of the people.

Comments on the Draft Master Plan and Integrated EIS from the public and from Federal, state, and local agencies and officials, will be considered in the decision to implement the Master Plan at the project, and will be incorporated into the Final Master Plan and Integrated Environmental Impact Statement. Public comments will also be used to determine the overall public interest. A public meeting will be held on Thursday, August 14, 1997, from 7:00 to 9:00 p.m, at the Mineral County Health Center, Harley O. Staggers Sr. Drive, Keyser, West Virginia.

This Notice of Availability is being sent to organizations and individuals known to have an interest in the Master Plan Update. Please bring this notice to the attention of any other individuals with an interest in this matter. Copies of the Draft Jennings Randolph Lake Master Plan 1997 Update and Integrated EIS are available for review at the following locations:

Keyser/Mineral County Public Library, 105 North Main Street, Keyser, West Virginia

Fort Ashby Public Branch Library, Fort Ashby, West Virginia

Piedmont Library, Childs Avenue, Piedmont, West Virginia

Allegheny Mountain Top Public Library, Mount Storm, West Virginia

Cumberland Public Library, 31 Washington Street, Cumberland, Maryland

Garrett County Public Library, 6 North 2nd Street, Oakland, Maryland

Westernport Public Library, 66 Main Street, Westernport, Maryland

Frostburg Library, 90 East Main Street, Frostburg, Maryland

La Vale Library, 815 National Highway, La Vale, Maryland

Requests for copies of the Draft Report and EIS may be mailed to the following address:

District Engineer
ATTN: CENAB-OP-TR (Evans)
U.S. Army Corps of Engineers
Baltimore District
P.O. Box 1715
Baltimore, MD 21203-1715

FOR THE COMMANDER:

RONALD A. CUCINA
Acting Chief, Operations Division

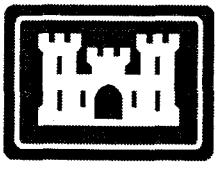
DATE: 8 8 1997

DRAFT

Jennings Randolph Lake
1997 Master Plan Update
and
Integrated Programmatic Environmental Impact Statement

Prepared by:

U.S. Army Corps of Engineers
Baltimore District



July 1997

US Army Corps
of Engineers
Baltimore District

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MARYLAND 21203-1715

Jennings Randolph Lake, Maryland and West Virginia

1997 Master Plan Update And Integrated Programmatic Environmental Impact Statement

JULY 1997

NOTE TO THE READER: The Environmental Impact Statement (EIS) for this project has been integrated into the following Master Plan in accordance with Engineering Regulation (ER) 1130-2-550, dated November 1996, and ER 200-2-2, dated June 1996. Sections of the report that are required for compliance with the National Environmental Policy Act (NEPA) are noted by an asterisk (*) in the Table of Contents.

LOCATION OF PROPOSED ACTION: Jennings Randolph Lake is located on the North Branch of the Potomac River in Garrett County, Maryland, and Mineral County, West Virginia, approximately 8 miles upstream of Bloomington, Maryland, and approximately 5 miles north of Elk Garden, West Virginia.

DISTRICT CONTACT: Ms. Lacy Evans
Attn: CENAB-OP-TR
U.S. Army Corps of Engineers
Baltimore District
P.O. Box 1715
Baltimore, Maryland 21203-1715

ABSTRACT: The Jennings Randolph Lake 1997 Master Plan Update and Integrated Programmatic Environmental Impact Statement updates the existing Master Plan, written in 1973, and the original environmental documentation for the project. These actions are necessary because of the age of these documents and because the scope of possible activities at the project have broadened considerably since its construction. The improved water quality at the lake has presented an opportunity to include water contact activities in the project's recreational activities. The updated plan reflects changes that have occurred to the site, in the region, in recreation trends, and in Corps policy in the years since the original master plan was completed. The purpose of the update is to guide the use and development of natural and constructed resources on Corps fee-owned lands at Jennings Randolph Lake. The Master Plan is the basic document guiding Corps responsibilities pursuant to Federal laws to preserve, conserve, restore, maintain, manage, and develop the project lands, waters, and associated resources. The integrated Environmental Impact Statement is a programmatic document which is designed to address the current operation of the lake and its facilities and evaluate the proposed level of future development. Additional National Environmental Policy Act (NEPA) documentation may be required for any construction activities undertaken as a result of the updated Master Plan.

COMMENT PERIOD DATES: The comment period will begin on July 31, 1997, and end on September 16, 1997.

JENNINGS RANDOLPH LAKE, MARYLAND AND WEST VIRGINIA

1997 Master Plan Update And Integrated Programmatic Environmental Impact Statement

EXECUTIVE SUMMARY

General: Jennings Randolph Lake is located on the North Branch of the Potomac River in Garrett County, Maryland, and Mineral County, West Virginia, approximately 8 miles upstream of Bloomington, Maryland, and approximately 5 miles north of Elk Garden, West Virginia. The dam is a multi-purpose project authorized for flood protection, water quality, recreation, and water supply.

The 1995 Energy and Water Development Appropriations Act (Public Law 103-316, 108 Stat. 1701, dated 26 August 1994) authorized the Jennings Randolph Lake Master Plan 1997 Update. The original Master Plan for Jennings Randolph Lake was completed in 1973. The current update reevaluates the assets, needs, and potential of the project. The 1997 Master Plan Update reflects changes that have occurred to the site, in the region, in recreation trends, and in Corps policy in the years since the original master plan was completed. The purpose of the update is to provide a guide for the use and development of natural and constructed resources on Corps fee-owned lands at Jennings Randolph Lake. The Master Plan is the basic document guiding Corps responsibilities pursuant to Federal laws to preserve, conserve, restore, maintain, manage, and develop the project lands, waters, and associated resources.

The integrated Environmental Impact Statement is a programmatic document which is designed to address the current operation of the lake and its facilities and evaluate the proposed level of future development. Additional National Environmental Policy Act (NEPA) documentation will be required for any construction activities undertaken as a result of the updated Master Plan.

The updated Master Plan has been prepared in accordance with Engineering Regulation (ER) 1130-2-550, dated November 1996. This regulation prescribes "an overall land and water management plan, resource objectives, and associated design and management concepts" that provides the "best possible combination of response to regional needs, resource capabilities and suitabilities, and expressed public interests and desires consistent with authorized project purpose." Additionally, as specified in the regulation, the master plan contributes to "providing a high degree of recreation diversity within the region;" emphasizes the "particular qualities, characteristics, and potentials of the project;" and exhibits "consistency and compatibility with national objectives and other state and regional goals and programs." The decision to implement the proposed future development at Jennings Randolph Lake is based on an evaluation of the probable impact of the proposed activities on the environment, as well as public interest. Factors being considered include regional economics, general environmental concerns, wetlands, cultural resources, flood hazards, fish and wildlife resources, flood plain management, land use, recreation, water supply, water quality, aesthetics, energy needs, regional and local infrastructure, hazardous and toxic materials, public health and safety, food and fiber production, and the general needs and welfare of the people.

Comments on the Draft Master Plan and Integrated EIS from the public and from Federal, state, and local agencies and officials, will be considered in the decision to implement the updated Master Plan at the project, and will be incorporated into the Final Master Plan and Integrated Environmental Impact Statement. Public comments will also be used to determine the overall public interest.

Major Conclusions: Based on an analysis of regional economic and recreational needs, a recommended plan for development was formulated for Jennings Randolph Lake. The recommended plan is comprised of 9 recreation sites and 20 features. These features include new recreation areas, new facilities, improved existing facilities, increased area-wide programs and projects, and improved infrastructure. The proposed facilities could be funded through a variety of sources such as O&M funds, cost-sharing partnerships, congressional appropriations, private funding (concessions), or other Federal and State agency funding.

Area of Controversy: As with any multi-purpose project, there are competing interests for a limited number of resources at Jennings Randolph Lake. No major disagreements among agency and public interests were identified during the course of the study. There are no unresolved controversies.

Unresolved Issues: At this time there are no unresolved issues.

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NOTE: * - Indicates information required for National Environmental Policy Act Compliance

SECTION 1

INTRODUCTION

1.1 Study Purpose

The Jennings Randolph Lake Master Plan 1997 Update and Integrated Programmatic Environmental Impact Statement serves four main purposes. First, the document provides an analysis of and guidance for future recreational development activities at the project. The scope of possible recreational activities at the project have broadened considerably since the lake's construction, primarily due to improved water quality. The demand for recreational facilities has also increased in the region, and recent analysis indicates that the lake cannot currently meet those demands. Second, the document provides an analysis of the local and regional economic benefit to be gained by improving recreational resources at the lake. Third, this document updates the existing Master Plan, written in 1973. Fourth, the document serves as a National Environmental Policy Act compliance document for project operations; updating the original environmental documentation for the project. The document update actions are necessary because of the age of these documents, and because of the increased scope of possible activities at the lake.

The current Master Plan Update presents a re-evaluation of the assets, needs, and potentials of the project. The updated plan reflects changes that have occurred to the site, in the region, in recreation trends, and in Corps policy in the years since the original master plan was completed. The Master Plan is the basic document guiding Corps responsibilities pursuant to Federal laws to preserve, conserve, restore, maintain, manage, and develop the project lands, waters, and associated resources.

The integrated Environmental Impact Statement is a programmatic document which is designed to address the current operation of the lake and its facilities and evaluate the proposed level of future development. Additional National Environmental Policy Act (NEPA) documentation will be required for any construction activities undertaken as a result of the updated Master Plan.

1.2 Study Authority

The 1995 Energy and Water Development Appropriations Act (Public Law 103-316, 108 Stat. 1701, dated 26 August 1994) authorized the Jennings Randolph Lake Master Plan Update. The language states that "[the] Corps is directed to use available funds to initiate work on a revised master plan for Jennings Randolph Lake to reflect changing demands. To the extent practical, the Corps should consult and work with all affected interest groups in developing the revised plan." This document updates the 1973 Master Plan for the Jennings Randolph Lake project.

1.3 Scope of Study

The updated Master Plan has been prepared in accordance with Engineering Regulation (ER) and Engineering Pamphlet (EP) 1130-2-550, Chapter 3, Project Master Plans and Operational

Management Plans, dated November 1996. This regulation prescribes "an overall land and water management plan, resource objectives, and associated design and management concepts" that provides the "best possible combination of response to regional needs, resource capabilities and suitabilities, and expressed public interests and desires consistent with authorized project purpose." Additionally, as specified in the regulation, the master plan contributes to "providing a high degree of recreation diversity within the region;" emphasizes the "particular qualities, characteristics, and potentials of the project;" and exhibits "consistency and compatibility with national objectives and other state and regional goals and programs."

The update process included review and evaluation of the 1973 Master Plan, data gathering, analysis of economic and environmental impacts of the alternatives and proposed plan, formal and informal in-house and agency coordination, preparation of preliminary conceptual and alternative plans, a public involvement program, discussion of the issues and special consideration inherent to the project, and selection of a proposed plan.

1.4 Study Area

Jennings Randolph Lake, formerly named Bloomington Lake, is located on the North Branch of the Potomac River in Garret County, Maryland, and Mineral County, West Virginia, approximately 8 miles upstream of Bloomington, Maryland, and approximately 5 miles north of Elk Garden, West Virginia (Figure 1-1). Project lands occupy approximately 4,500 acres of land. The dam at Jennings Randolph controls a drainage area of 263 square miles, and is a key part of the North Branch Potomac River floodbasin control system.

1.5 Integration of NEPA Documentation into the Master Plan

The National Environmental Policy Act (NEPA) of 1969, as amended, requires documentation of existing conditions and potential impacts of any Federal undertaking. The NEPA documentation for the Jennings Randolph Lake Master Plan Update has been incorporated into the Master Plan Update itself. Because future development and expected use levels at the project are higher than was described in the original Master Plan and Environmental Analysis, an EIS is the appropriate NEPA documentation for the Master Plan Update. The integrated EIS is a programmatic document which is designed to address the current operation of the lake and its facilities and evaluate the proposed level of future development. Additional NEPA documentation will be required for any construction activities undertaken as a result of the updated Master Plan.

This document was prepared in accordance with the provisions of the National Environmental Policy Act of 1969, as amended; the Council on Environmental Quality (CEQ) Regulations (40 CFR, 1500-1508), 29 November 1978; and the U.S. Army Corps of Engineers Regulation (ER)200-2-2, *Procedures for Implementing NEPA,* 4 March 1988. The CEQ regulations require that the environmental significance of a proposed Federal action be documented and assessed prior to taking any action which would limit the choice of reasonable alternatives.

Future NEPA documents may be required for individual construction activities which occur as a result of this Master Plan Update. These documents will address the site-specific impacts of those projects.

1.6 Pertinent Prior Reports and Related Studies

Documents and studies related to the Master Plan update are listed in this section with the dates of publication. The Bibliography section contains the full annotation for each report or study.

- *Potomac River Basin Report-North Branch Potomac River above Cumberland,* 1963
- *Design Memorandum No. 1, Site Selection,* 1964
- *Design Memorandum No. 2, Hydrology and Hydraulics,* 1965
- *Design Memorandum No. 3, General Design Memorandum,* 1966; revised 1968
- *Operational Management Plan,* last revision, 1995
- *Jennings Randolph Lake Reallocation Feasibility Study,* DRAFT, 1996
- *Jennings Randolph Lake Section 1135(b) Study,* ongoing
- *North Branch Potomac River Environmental Restoration Reconnaissance Study,* 1995
- *North Branch Potomac River Environmental Restoration Feasibility Study,* ongoing
- *Bloomington Lake Pre-Impoundment Study,* 1984
- *Bloomington Lake Reformulation Study,* 1983
- *Master Manual for Reservoir Regulation North Branch Potomac River Basin*, DRAFT, 1996
- *Operations and Maintenance Manual*, 1984; revised 1984
- *Design Memorandum No. 18, Environmental Analysis*, 1972
- *Environmental Statement,* 1971
- *Maryland Land Preservation and Recreation Plan*, 1993
- *West Virginia Statewide Comprehensive Outdoor Recreation Plan*, 1993-1997
- *Pennsylvania's Recreation Plan,* 1991-1997
- *Design Memorandum No. 4A, Preliminary Master Plan*, 1966; revised 1969
- *Design Memorandum No. 14, Master Plan,* 1973; revised 1975 and 1978

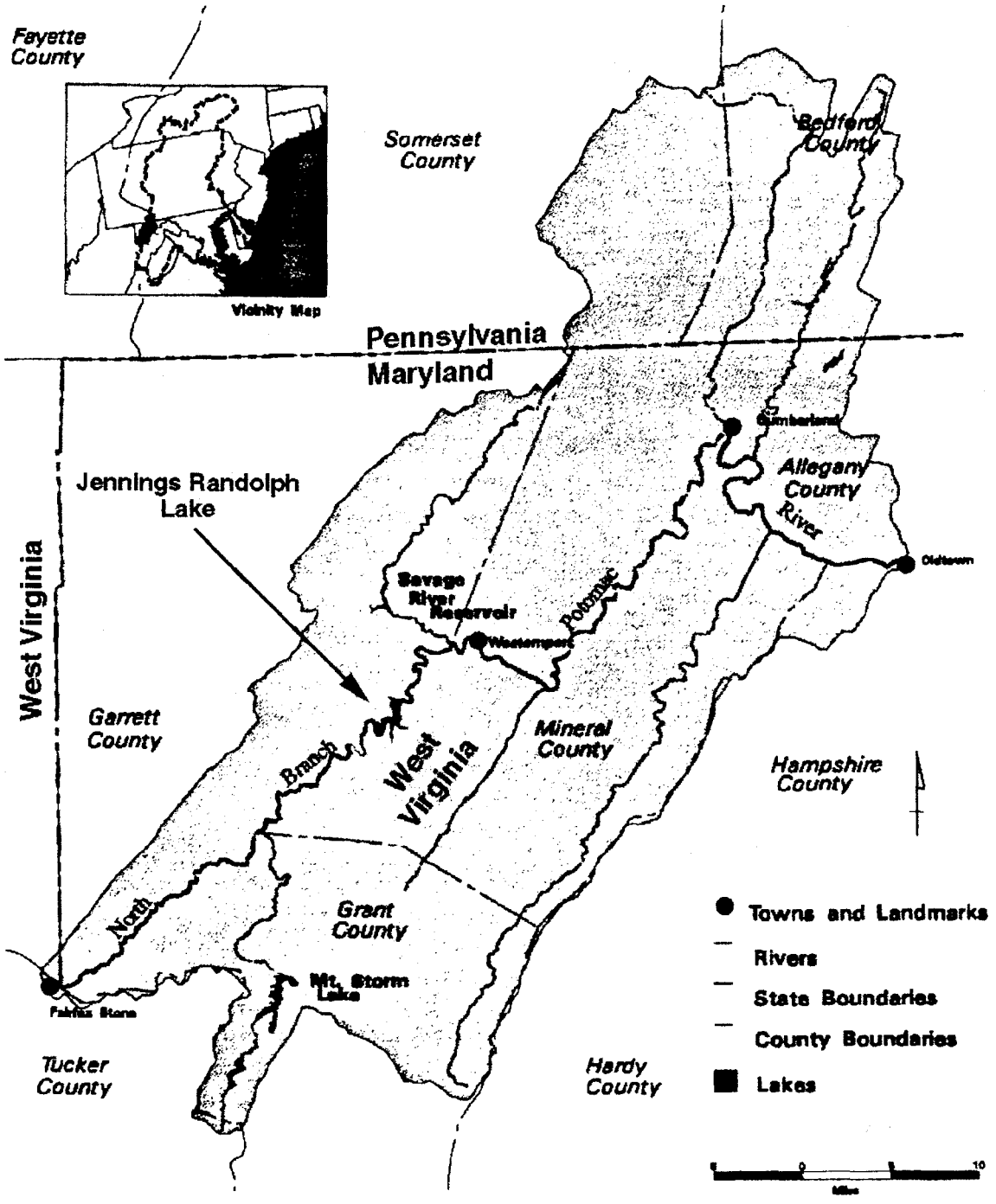

FIGURE 1-1
Location Map: Jennings Randolph Lake and North Branch Potomac River Basin

SECTION 2

EXISTING FEDERAL PROJECT

2.1 Authorized Project Purposes

Jennings Randolph Lake was authorized by the Flood Control Act of 1962 (Public Law 874, 87th Congress, 2nd session) which reads in part as follows: "The project for the North Branch of the Potomac River, Maryland and West Virginia, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers, in House Document Numbered 469, Eighty-seventh Congress."

House Document Number 469, 87th Congress, 2nd session contains the report of the Chief of Engineers, dated April 1961 and titled "Potomac River Review Report - North Branch Potomac River above Cumberland." This report recommended construction of a dam on the North Branch Potomac River at a site 2 miles above its confluence with the Savage River to provide flood control, domestic and industrial water supply, water quality control, and recreation. The project, as constructed, is actually 7.9 miles upstream of the confluence. Originally named Bloomington Lake, the project was rededicated in May 1987 with a new name, in honor of former West Virginia Senator Jennings Randolph, who made this and other Federal water resources projects possible.

Jennings Randolph Lake is located on the border between Maryland and West Virginia, in the North Branch Potomac valley, approximately 8 miles upstream of Bloomington, Maryland, and about 5 miles north of Elk Garden, West Virginia. The dam controls a drainage area of 263 square miles, about 20 percent of the total North Branch basin, and prevents nearly half the yearly flood damages that used to occur along the North Branch Potomac River. The project was designed to reduce flood damage, to improve downstream water quality, to provide a source of water supply for municipalities and industry downstream, and to afford public recreation opportunities.

Construction of the project began in 1971 and took 10 years to complete at a total cost of approximately $175 million. Impoundment of water to form the lake was completed in June 1982. The Maryland Potomac Water Authority, an agency of the State of Maryland, contributed funds to cover the initial water supply costs of the project, and continues to purchase long-term water supply storage space in the reservoir.

The seasonal pool level provides a surface area of 952 acres and a shoreline of 13.6 miles, and extends upstream from the dam for a distance of 5.5 miles along the streambed. The project is located in a narrow, winding valley typical of the many streams and rivers in the central Appalachian area. The slopes forming the shoreline are wooded and steep, severely limiting the development of recreation areas adjacent to the seasonal pool. The rugged topography in and around the lake discourages the construction of access roads, particularly on the Maryland shore.

At full conservation pool, the lake stores approximately 94,700 acre-feet of water. This translates into a volume of about 31 billion gallons of water that can be used for water supply, water quality improvement, and recreation. The project provides about 2,700 acre-feet of sediment storage, 92,000 acre-feet for low-flow augmentation and recreation, and a maximum of 36,200 acre-feet above the conservation pool level for flood control. The low-flow augmentation is subdivided into two portions: (1) 40,995 acre-feet of municipal water supply storage for the Washington, D.C., region, and (2) 51,005 acre-feet for water quality control.

In accordance with the provisions of the project authorization, 33.2 percent of the project construction costs, an estimated $57,876,000, are a non-Federal responsibility and are to be repaid in accordance with the Water Supply Act of 1958. Currently, the metropolitan Washington, D.C., area water suppliers that withdraw water from the Potomac River are under contract to purchase the water supply storage. An initial 7,158 acre-feet of water supply storage was purchased in November, 1970. The remaining water supply storage (33,837 acre-feet) is under contract as future water supply storage, with payments from the non-Federal sponsor beginning upon initial usage.

Releases from Jennings Randolph Lake are coordinated with releases from the nearby Savage River dam to maintain the water quality in the North Branch Potomac River. For many years, the highly acidic water draining from abandoned coal mines severely degraded the water-related habitats of the North Branch Potomac River. Jennings Randolph Lake is authorized to correct this acid balance, thereby providing a measure of water quality control in the river downstream of the dam. When acid mine drainage enters the Jennings Randolph Lake, the acid stratifies at a particular depth. Corps of Engineers personnel periodically test the water in the lake at various levels to determine the location of the "acid layer." Water is then selectively drawn from a low-acid layer of the reservoir. To accomplish this, the intake control tower has five pairs of intakes, each pair at a different elevation. Each intake can be individually opened to provide the best available mixtures of water and acid for release downstream.

Occasionally, the water quality releases will affect other aspects of the project, primarily lake-related recreation. Higher outflows from the lake to reduce downstream pollution may result in a lower lake level. This, in turn, may require closing of the boat launch facilities in late summer or early fall, even though the weather is still suitable for boating and water skiing. The benefits from water quality are best demonstrated by the highly successful trout fishery in the river below the dam, an area that was totally devoid of aquatic life before the dam was constructed.

2.2 Project Data

2.2.1 Dam

The dam, one of the largest rolled earth and rockfill dams east of the Mississippi River, is 296 feet high and 2,130 feet long. The crest width is 25 feet, and the top elevation of the dam is 1,514 feet national geodetic vertical datum (NGVD), which provides a freeboard of 5.1 feet above the spillway.

A rolled earth and rockfill dike, 900 feet long and 90 feet high, is located across a low area on the left abutment of the spillway. The crest width is 25 feet, accommodating a gravel maintenance road.

2.2.2 Spillway

The spillway, located on the left abutment, has a crest length of 210. The weir is an ogee section, gated and founded on bedrock. The elevation of the spillway crest is 1,468 feet NGVD, which is 2 feet above the conservation pool level. The spillway contains five tainter gates that are 42 feet wide and 32 feet high. Operating machinery for the tainter gates is located downstream from the roadway deck on machinery frames anchored to the piers and abutments. Access over the spillway is provided by a service bridge.

2.2.3. Outlet Works

The outlet works are located within the right abutment and consist of an inlet channel and tower, a tunnel under the dam, a stilling basin, and an outlet channel. The length of the inlet channel is approximately 100 feet. The intake tower is located 1,080 feet upstream of the dam, along with a 30-foot-high operating house consisting of a dry well structure approximately 332-feet-high. Access from the right abutment is provided by a service bridge. The tunnel extends 2,092 feet between portals. The upstream invert is located at an elevation of 1,255 feet NGVD and the outlet portal invert elevation is 1,238.3 feet NGVD. Except for the transition, the diameter of the inverts are 16.3 feet. A stilling basin with baffle blocks and end sills is provided downstream from the outlet portal to dissipate the energy of the high velocity tunnel flow. A flared transition includes a parabolic drop from the portal to the stilling basin floor. The basin is 64 feet wide and 116 feet long.

2.2.4. Reservoir

The reservoir impounds 94,700 acre-feet of water along 5.5 river miles at the seasonal pool level. The seasonal pool, elevation 1,466 feet NGVD, is approximately 2,600 feet wide, and provides a lake of 952 acres with 13.6 miles of shoreline. If the reservoir reaches the designed flood control lake, elevation 1,500 feet NGVD, it will cover 1,184 acres and extend 6.6 river miles upstream of the dam.

2.3 Reservoir Operation

Jennings Randolph Lake reservoir is operated, according to the Reservoir Regulation Plan, to (1) reduce flood flows at downstream damage centers on the North Branch and the main stem of the Potomac River, (2) improve downstream water quality via low flow augmentation, (3) supply water to Washington, D.C., and the local region, and (4) provide public recreation.

Because Jennings Randolph Lake is a multi-purpose project, priorities for reservoir regulation are occasionally adjusted. Flood control is always the highest priority; priorities for project purposes

other than flood control are constantly reevaluated. For instance, some water quality storage may be temporarily used for flood control storage during the winter.

When flooding is not likely, releases from the lake are usually adjusted to approximately the inflow rate, if the conservation pool is full (1,466 feet NGVD). When water quality or water supply needs occur, releases are made for these purposes. Additional detailed information may be found in the Master Manual for Reservoir Regulation, Appendix A (October 1996).

Flood Damage Reduction. Key damage centers located on the North Branch sub-basin are Luke, Westernport, and Cumberland, Maryland; and Piedmont, Keyser, and Ridgely, West Virginia. During August and September, the lake is allowed to draw down in anticipation of winter storage. Winter storage occurs between elevations 1,410 and 1,420 feet. Lowering of the lake to these elevations will provide adequate water storage during the winter and spring for flood control purposes.

Water Quality. Regulation of Jennings Randolph Lake is coordinated with the Savage River Reservoir that was placed in operation in 1952 and is used primarily for low-flow augmentation. Low-flow releases from Jennings Randolph Lake supplement flows in the North Branch and Potomac River for water supply and quality control. Jennings Randolph Lake exhibits both thermal and chemical stratification. In order to maintain suitable quality of releases, 5 pairs of outlets are provided. These outlets are controlled by 72-inch butterfly valves at elevations 1,449; 1,426; 1,400; 1,375; and 1,342. A systematic sampling program determines pH, acidity, temperature and other pertinent parameters at each of the intake port positions.

Jennings Randolph Lake experiences wide pool fluctuation (pool elevation 1,395 feet to 1,466 feet) because the water quality storage is used for flow augmentation during low flow periods and is refilled when inflow exceeds its requirement. The pool normally reaches the conservation pool in the spring. From mid-May through mid-June, the pool will be lowered 3 to 4 feet below the conservation pool. In late June, the pool can regain the conservation pool if sufficient inflow makes it possible to do so. The pool is generally below the conservation level in late summer and fall due to water quality and water supply releases.

Water Supply. Releases from the water supply storage are made only at the request of the water supply purchasers. The authorized minimum flow at Luke is 93 cubic feet per second (cfs), and for water quality purposes is 120 cfs. The minimum flow is composed of releases from Savage River Reservoir and Jennings Randolph Lake. The minimum outflow from Jennings Randolph Lake is 50 cfs. When water supply releases are made, the flow at Luke is 120 cfs plus water supply release. Jennings Randolph Lake fluctuates between elevation 1,320 and elevation 1,466 when making water supply releases. The pool will not be lowered to elevation 1,320 feet NGVD (10,000 acre-feet storage) due to the absolute minimum water quality storage needed for dilution in the lake.

Recreation. To accommodate in-lake recreation for boating, the pool is generally maintained above 1,455 until Labor Day. After Labor Day, boat access below elevation 1,455 feet, from the Howell Run Boat Launch is available without the use of the launch ramp. The Maryland Boat

Launch, which opened in March 1997, provides access from elevation 1,420 feet NGVD to 1,500 feet NGVD.

2.4 Land Classification

Land classification was done when the project was originally constructed. The classification process refines the land allocations to fully utilize project lands and must consider public desires, legislative authority, regional and project specific resource requirements, and suitability. Land at Jennings Randolph is classified into one of the categories listed in the following paragraphs.

2.4.1 Project Operations

This classification category includes all project land required for the structure, operation, administration, or maintenance of the project. Approximately 1,200 acres at Jennings Randolph Lake are allocated to project operations, including the maintenance shop and office buildings located on the right abutment of the dam. The maintenance shop consists of a radio room, heater room, workshop, storage, and garage facilities. The two office buildings house the ranger office and the park manager's office, and are located next to the overlook on the right bank.

2.4.2 Recreation

The recreation category includes land developed for intensive recreational use by the visiting public. This category includes approximately 450 acres of land.

2.4.3 Mitigation

This classification includes land acquired or designated specifically for mitigation. The project does not have any mitigation lands.

2.4.4 Environmentally Sensitive Areas

These areas include land where scientific, ecological, cultural, or aesthetic features have been identified. The project does not have land classified as environmentally sensitive areas.

2.4.5 Multiple Resource Management

Approximately 2,850 acres of project lands are classified as Multiple Resource Management areas, and are managed for one or more of the activities in the following paragraphs.

Recreation - Low Density. This sub-classification includes low-density recreation activities such as hiking, primitive camping, wildlife observation, hunting, or similar low density recreation activities. Low density recreation areas would include the Maryland and West Virginia Overlooks, the three hiking trails, and the Borrow Area (group camping). Hunting is permitted at Jennings Randolph Lake except within the recreation areas.

Wildlife Management - General. This sub-classification includes areas that have been evaluated for consideration for lease or license to State wildlife management agencies. The Maryland Department of Natural Resource holds a 1-acre lease to operate a trout-rearing pen in the stilling basin.

Vegetation Management. This sub-classification includes project lands that are managed for the protection and development of forest and vegetative cover. The project does not have land sub-classified as vegetation management.

Inactive and/or Future Recreation Areas. Project lands in this sub-classification include recreation areas that are planned for future development or that have been temporarily closed. There are no inactive areas at Jennings Randolph Lake project.

2.4.6 Easement Lands

Easement lands include all lands for which the Corps holds an easement interest but not fee title. Jennings Randolph does not have any project land in this classification.

2.5 Infrastructure

2.5.1 Project Access Roads

A series of crushed stone access roads connect the dam, outlet works, spillway embankment, connecting channel, and maintenance complex. A road from the right abutment overlook, down the downstream face of the dam, provides access to the outlet works and to an area on the left bank below the spillway; this road is not open to the public.

The recreation sites located in West Virginia may be accessed by the public from Keyser, West Virginia via WV SR 42 to WV SR 46; these are paved, two-lane state highways. The road from Maryland is WV SR 46, a two-lane dirt and gravel road originating in Luke, Maryland, that changes to a paved road about 1 mile northwest of the project. Another access from Maryland is MD SR 38 to WV SR 42, to Elk Garden, to WV SR 46, to the project.

Access to the Maryland Overlook is provided by MD SR 135 via Walnut Bottom and/or Chestnut Grove Roads. The Maryland Boat Launch is accessible by MD SR 135 via Mt. Zion road.

2.5.2 Sanitary Facilities

All facilities, except boat launching ramps, are sited above the full pool at elevation 1,500 feet NGVD. The sewage system serving the administrative and maintenance buildings, and the West Virginia Overlook is a standard gravity septic system composed of service and trunk lines, a 1,000-gallon septic tank, a dosing tank, a distribution box, a sand filter, a chlorinator house, and outfall lines. The sewage system serving the campground and dumping station consists of a holding tank which is periodically pumped out by a local vendor, through a service contract with

the Corps. Vault latrines have been provided at the Howell Run Picnic Area and the Howell Run Boat Launch because of the areas' remote location.

Solid waste is generated at several recreation areas along with the maintenance and office buildings. The recreation areas require servicing on a seasonal basis, and the maintenance and office buildings require year-round servicing. Disposal of waste generated at these areas is done by a local vendor through a service contract with the Corps.

2.5.3 Water Supply

Water is supplied to the campground by an above ground water storage tank. The handpumps, located throughout the campground, are gravity fed from the tank. The administration/maintenance complex and the West Virginia Visitor's Center is served by a 500 foot well. Water is not supplied at either the Howell Run Picnic Area or the Howell Run Boat Launch.

SECTION 3

FEDERAL PROJECT OPERATIONS

This section addresses operations at the Federal project, including management of the project lands and natural resources. It includes a description of the current practices, objectives, and policies for project operations.

3.1 Forest Management

3.1.1 Existing Resources

The major forest types on the project lands are oak, spruce, fir, and mixed northern hardwoods. Large-scale logging and fires in the 19th century significantly reduced the numbers of spruce trees in the project area. Existing second-growth forests are dominated by broad-leaved deciduous trees. Common tree species in the lower slopes include American basswood, tulip poplar, and red maple. Upper slope trees include red and white oak, chestnut oak, hickories, and sugar maple. Approximately 80 percent of the trees on the property are mature canopy-layer trees, 30 to 50 years old.

Forest species unique to the area include overstory species such as black maple and black ash; understory species such as smooth azalea, winterberry, alternate-leafed dogwood, flowering dogwood, redbud, serviceberry, and burning bush; and herbaceous layer species such as bladderwort, great Solomon's seal, Dutchman's pipevine, Dutchman's breeches, ~~and snow trillium~~.

Rare and Threatened Species. Snow trillium is a Maryland Highly State Rare Species (S1). This means that this species is "critically imperiled in Maryland because of extreme rarity (typically 5 or fewer estimated occurrences or very few remaining individuals or acres in the State) or because of some factor(s) making it especially vulnerable to extirpation. Species within this rank are actively tracked by the Natural Heritage Program."

Black Ash is on the Maryland State Watch List (S3). This means that this species is "[r]are to uncommon with the number of occurrences typically in the range of 21 to 100 in Maryland. It may have fewer occurrences but with a large number of individuals in some populations, and it may be susceptible to large-scale disturbances. Species with this rank are not actively tracked by the Natural Heritage Program."

The bladderwort, depending on the species, could be a State Highly Rare or State Watch List species.

3.1.2 Management Objectives

The main objective of the Jennings Randolph Lake forest management plan is to increase the value of project lands for wildlife, recreation, and timber, by promoting natural ecological conditions through conservation practices.

3.1.3 Management Practices

The forest management strategy is a flexible framework for managing timber and forest resources to support wildlife and recreation as changing needs warrant. Preservation of aesthetics and species diversity is a large part of this framework.

The forest resources at the project are not particularly well suited to timber production. This is due primarily to steep slopes and potential aesthetic impacts. Slopes on the project lands range up to 65 percent. The erosion potential at slope sites is moderate to severe, making timbering an unfavorable option. Many forest sites are also clearly visible from the lake and recreation areas, making these sites unfavorable for timbering due to aesthetic impacts. For these reasons, the forest management program is aimed at protecting and enhancing forest lands for wildlife and recreation. Vegetation, either living or dead, is removed only for disease control, pest control, fire hazard reduction, flood clean-up, construction, or dam maintenance.

Timber Sales. In accordance with ER 1130-2-550, all forest products generated through clearing, salvage operations, sanitation cuts, or operation and maintenance, and not required for Corps use, will be sold after approval of a disposal plan. Currently, there are no plans for the sale of timber from the Jennings Randolph Lake project.

Fire Protection and Erosion Control. The objectives of the project's fire protection and erosion control procedures are to maintain and preserve the diverse vegetative cover and to protect it from wildfire, insects, and disease. These practices are meant to enhance the health and vigor of the forest cover by protecting the watershed from erosion, and to maintain high water quality by reducing runoff and siltation.

Through normal operations and patrols of the Jennings Randolph Lake project, the ranger staff will note any areas that may be susceptible to fire damage, such as those areas with heavy concentrations of grapevines, which cause damage by uprooting or breaking trees. If it is necessary to remove the hazardous or damaged vegetation, the work will be scheduled for completion as soon as practical. If the Project Manager feels that the job is too large for project staff, the manager will have the work performed by a contractor.

As authorized in Title 42, U.S.C., Sec. 1856a., the Corps may enter into reciprocal agreements with responsible fire organizations for fire protection of Corps properties. Such agreements would include a waiver of all claims for compensation for any loss, damage, personal injury, or death resulting from the performance of the terms of the agreement. The agreement may also provide for the reimbursement for all costs incurred in furnishing fire protection on Corps lands. At the present time, the Jennings Randolph Lake project has no such formal agreement with any

agency for fire protection. However, the Elk District Fire Company on the West Virginia side of the reservoir will respond to calls from the Corps and will provide protection for those portions of the project. They are well equipped to handle all types of fires, including forest, grass, and structural fires. In the case of a fire in the operations area, such as at the spillway, the Elk District Fire Company is notified, because they are able to respond more quickly in this sort of crisis, even if the fire technically occurs on the Maryland side of the project.

In the event of a fire on the Maryland side of the project, Garrett County Civil Defense can be reached by dialing 911 or by radio. Emergency radios are located in the vehicles of the Reservoir Manager, Head Dam Operator, and Chief Ranger, and at the base station in the Manager's office. The Garret County dispatcher will alert the closest available unit to respond to all fires. Fire personnel respond to the call, and are directed to the specific location of the fire by project personnel.

The Corps maintains some minor firefighting equipment on-site, such as fire rakes, Indian backpack pumps, a 525-gallon water bladder, and a backhoe. The project staff are trained to contain a fire until trained firefighters arrive on the scene.

The forest resources of the project lands are maintained, in part, to prevent soil erosion and its accompanying water quality degradation. Erosion noted on the project site is corrected as funding and manpower become available to address the problem.

3.2 Wildlife Management

3.2.1. Existing Resources

Common mammals on the project lands include white-tailed deer; black bear; gray, red, flying, and fox squirrels; gray and red foxes; skunks; raccoons; opossum; groundhogs; bobcats; and cottontail rabbits. Beaver, minks, and muskrats occasionally occupy the reservoir and its tributaries, but the fluctuating water level in the pool is a limiting factor for them.

Jennings Randolph Lake and its project lands support a variety of birds, including locally abundant birds such as sparrows and finches. The lake also hosts numerous migratory ducks and geese each year, due, in part, to the improved water quality at the lake. The improved trout fishery attracts osprey and bald eagles to the area, some of which are nesting on the project lands. The bald eagle is the only threatened species known to exist on project lands.

3.2.2 Management Objectives

The primary objective of the wildlife management policy at Jennings Randolph Lake is to maintain and, if possible, enhance the current wildlife population at the project in the most efficient manner possible. Wildlife is managed in a manner that is complementary to other management activities.

3.2.3 Management Practices

Bird Habitat Enhancement. The ranger staff has constructed and maintained approximately 20 bluebird boxes at the project. The average success rate for these boxes is over 50 percent. Four wood duck boxes have also been constructed, but have not been successful. In 1988, the Songbird Trail was established adjacent to Maryland Overlook #2. This area is designed to attract a variety of bird species to the area via bird feeders and natural food sources.

Mammal Habitat Enhancement. The ranger staff has rejuvenated the old apple orchard on the property to be more productive. Cuttings from this project were piled or wind-rowed to provide cover for smaller mammals. This project also benefits insect species such as bees and butterflies, which feed on the decaying fruit.

Endangered/Threatened Species Habitat Enhancement. The bald eagle (Haliaeetus leucocephalus) is the only threatened species noted on the project lands. No attempt is currently being made to improve this species' habitat on the project lands.

Natural Resource Law Enforcement. West Virginia DNR and Maryland DNR enforce game laws at portions of the project within their respective states. An interstate compact for joint enforcement of natural resource laws and boating regulations was signed into law in 1996.

3.3 Aquatic Habitat and Fisheries Management

3.3.1 Existing Resources

Water quality in the Jennings Randolph Lake and North Branch Potomac River have improved significantly over the past 15 years, due, in part, to the efforts by Maryland and West Virginia resource agencies, the Virginia Electric Power Company, and operations at the lake itself. The improved water quality lends itself to fisheries development, and the lake has been stocked with a variety of fish species since 1983. Both Maryland and West Virginia continue to stock the lake with largemouth bass, smallmouth bass, walleye, channel catfish, and rainbow, golden, brown, and lake trout.

3.3.2 Management Objectives

The objective of the fish management plan for the North Branch of the Potomac River and Jennings Randolph Lake is to maintain and, if possible, improve the current fisheries on project lands. The long-term goal is to establish a self-sustaining sport fishery. Both West Virginia DNR and Maryland DNR have taken an active interest in the lake and river, and the fish management plan for the project reflects those interests.

3.3.3 Management Practices

Fisheries. Trout are reared in six pens in the lake's stilling basin. This operation is owned and maintained by the Freshwater Fisheries Division of Maryland DNR, through an agreement with the Corps. In 1995-1996, approximately 35,000 fish were raised in the DNR pens.

The cooperative stocking by West Virginia DNR and Maryland DNR has created an important regional trout fishery below the dam. In May 1995 approximately 3/4 mile of restricted area between the dam and Barnum, WV was open to the public for catch and release fishing. The stilling basin and the area immediately downstream of the basin remains closed to the public as a fish propagation area.

West Virginia does not have a structured stocking policy for Jennings Randolph Lake. They do stock different types of fish in the reservoir when the fish become available, but they do not actively attempt to get fish for the lake on a predetermined basis. In past years, West Virginia has attempted to stock channel catfish every other year to help maintain the population; also, they have stocked threadfin shad whenever possible. Unfortunately, they caution that they cannot assure us with any certainty that this practice will continue.

In 1989, approximately 60 fish habitat improvement structures were placed in the lake by the ranger staff, in cooperation with local sportsman's groups and Maryland Department of Natural Resources. Maintenance of these devices is the responsibility of the ranger staff.

West Virginia DNR and Maryland DNR conduct gill net fish surveys each year for monitoring purposes. Rotenone is no longer used as a sampling aid.

Aquatic Resources. Aquatic health of the North Branch Potomac River is monitored through yearly contracted biological sampling. In addition, Corps employees do limited sampling in the river below the dam.

The lake is zoned into three areas: (1) a no-wake zone around the boat launch ramp, (2) a restricted access area around the dam and intake tower, and (3) the remainder of the lake. There are no restrictions on boat size or horsepower. West Virginia DNR and Maryland DNR are the state agencies responsible for water safety.

3.4 Water Quality Management

3.4.1 Existing Resources

The North Branch of the Potomac River was a polluted, acidic river prior to the construction of Bloomington Dam (Jennings Randolph Lake) in 1981. The poor water quality was a result of drainage from strip mines and deep mines in the watershed.

Several factors have contributed to the improvement of water quality in the lake and downstream since 1981. Active mines upstream have been forced by regulations in both states to improve

treatment of discharges. Reclamation has occurred on some old inactive mines. VEPCO limes the water discharged from Mount Storm Lake to help reduce acidity. The great depth of Jennings Randolph Lake (250 feet in places) allows the acid to stratify in the lake. All of these factors combine to produce a lake and a portion of the downstream river capable of supporting a sport fishery at this time.

3.4.2 Management Objectives

The objective of water quality management at the project site is to regulate the reservoir in such a way as to conform to the specific provisions of the project's authorizing legislation and water management criteria defined in the reports prepared in the planning and design stages of the project. In addition, the goals for water quality management include provisions as set forth in the applicable authorities established after project construction, plus all applicable Congressional Acts relating to operations of Federal facilities.

3.4.3 Management Practices

Downstream discharge is made via the multi-port intake structure, which allows water from different levels of the lake to be mixed and ensures the consistent quality of water downstream. High volume discharges are made during times of high downstream AMD production to help dilute acids and other associated pollutants in the river below the dam. Releases are also made to maintain downstream stream and riparian habitat.

An annual report, the *North Atlantic Division Water Quality Management Report,* provides information on water quality for all Corps reservoirs in the Division, including the status of biological, chemical, and hydrodynamic parameters. The report also makes recommendations for management improvements.

3.5 Facility Maintenance And Management

3.5.1 Existing Resources

The Jennings Randolph Lake dam is a rolled earth and rockfill dam, 2,130 feet long and 296 feet high. The controlled spillway, located on the left abutment, has a crest length of 210 feet and has five tainter gates, 32 to 42 feet high. The outlet works consist of a 330-foot tower connected to a 16-foot diameter tunnel, 1,619 feet long. Two hydraulic slide gates in the tower control the flow of water through the tunnel. The project has several support buildings on-site, which include an administrative office, a ranger office, facility, and a maintenance shop and garage. Jennings Randolph Lake has developed recreational areas that include two overlooks, a picnic area, two boat launches, and a campground. A third boat launch is located downstream of the dam, on the North Branch Potomac River.

3.5.2 Management Objectives

Typical facility management includes the operation and maintenance of the flood control related structures, other structures, mechanical equipment, lands, and roads. Management objectives for the project's physical structures and equipment is to maintain them in good working order.

3.5.3 Management Practices

Mowing. Mowing at the facility is done as needed along the roads and parking areas, around the administration buildings, and in the primary recreation areas. The overgrowth of plant life on the dam has been reduced by spraying.

Pest Management. The site does not use pesticides or herbicides.

General Structural Maintenance. Minor maintenance and repairs are done by project staff on an as-needed basis. Any major structural maintenance would most likely be contracted out.

Outgrants. An outgrant is a method of contracting, leasing, or licensing fee title lands to others for a variety of purposes (such as scientific or educational study) consistent with the overall management objectives of the Corps. The Maryland Department of Natural Resources has two outgrants with the Corps, in the stilling basin trout pens and the a boat launch.

Monitoring. Every 5 years, an assessment is made of the facilities and activities at all Baltimore District Corps flood control projects. The latest assessment in 1992, performed by Arthur D. Little, Inc., was conducted as part of the U.S. Army Corps of Engineers environmental review program, using the Environmental Review Guide for Operations (ERGO) manual. This manual, developed by the Army, requires the use of environmental assessments to ensure compliance with all applicable Federal, state, local, Department of Defense, and Army environmental standards.

The 1992 assessment found no significant deficiencies in any of the protocols for the Jennings Randolph reservoir. The assessment found no major deficiencies, and only one minor deficiency; the lack of an "Unleaded Gasoline" label on the facility's pump stand. Two good management practices were also identified; the positive management and documentation of furnace inspections and analyses, and the positive management of waste oil at the site.

SECTION 4

EXISTING RESOURCES

Section 2 defined the existing Federal project operations as well as the physical and hydrologic characteristics of Jennings Randolph Lake. This section defines the existing recreational and environmental conditions or affected environment at the project. To reduce duplication of efforts and resources, most of the information in this section has been taken from *the North Branch Potomac River Water Resources Study Reconnaissance Report* (1995), the unpublished *Draft Feasibility Reallocation Report* (1996), and the *Draft Master Manual for Reservoir Regulation, North Branch Potomac River Basin, Appendix A* (1996) and updated as appropriate. Some of the information is included in this report by reference. Additional topographic and soils information was taken from the pre-construction *Design Memorandum No. 18: Environmental Analysis* (1972).

4.1 Watershed Characteristics

Jennings Randolph Lake is located in the winding gorge of the North Branch Potomac River through the Appalachian Highlands. The North Branch Potomac River descends 1,930 feet in the 36 river miles from its source to the dam site; from 3,150 feet NGVD to 1,220 feet NGVD.

The watershed above the dam has a drainage area of 263 square miles, is about 23 miles long and 12 miles wide, and is roughly rectangular in shape. The dam at Jennings Randolph Lake controls about 20 percent of the North Branch's entire drainage area. The principle tributaries of the North Branch above the dam site are Stony River and Abrams Creek. The watershed contains no natural lakes and only a few small marshy areas.

Two man-made reservoirs upstream of Jennings Randolph Lake are located on the Stony River. Mount Storm Reservoir, owned by the Virginia Electric Power Company (VEPCO), provides cooling water for an electricity generating station. This reservoir has a drainage are of 31.2 square miles, a normal pool area of 1,110 acres, and a storage capacity of 47,600 acre-feet. Stony River Dam is located upstream of Mount Storm Reservoir, but has been drained and abandoned.

The fourth reservoir located in the North Branch watershed is located downstream of Jennings Randolph. Savage River Dam is located on the Savage River in Garrett County, Maryland, approximately 4.5 miles above the confluence of the Savage River with the North Branch. The total drainage area is 104 square miles. The reservoir is operated in conjunction with the Jennings Randolph reservoir to augment stream flows in order to supply water for industries and to control water quality.

4.2 Topography

The terrain of the watershed is rugged, with steep, heavily wooded mountainsides and deep, narrow valleys through which the river meanders. The western two-thirds of the basin lies within the Allegheny Plateau physiographic province, while the eastern third is located on the margins of the Ridge and Valley province.

The Allegheny Plateau is a high, deeply dissected plateau bounded by an eastward-facing escarpment known as the Allegheny Front. Prominent ridges are the Allegheny Front (elevation 3,500 feet NGVD) and Knobly Mountain (elevation 2,850 feet NGVD) in the eastern portion, and Meadow Mountain (elevation 3,031 feet NGVD) and Backbone Mountain (elevation 3,278 feet NGVD) in the western portion. The basin topography and branching pattern of its minor stream channels are a result of the plateau and ridge geomorphology, and the sedimentary origin of the bedrock. Valleys slope toward the center of the basin, at which point the rivers and streams cut through the ridge lines at right angles into the valleys to the east. The most westerly of these basins is drained by the Savage River, which is joined in successive valleys by the North Branch Potomac River, George's Creek, and New Creek.

The Jennings Randolph project lands, therefore, have generally steep slopes, usually over 10 percent. Very few areas are suitable for construction of recreation facilities. For environmental planning purposes, slopes were grouped into three categories: gentle slopes, moderate slopes, and steep slopes.

4.2.1 Gentle Slopes

This category includes land with slopes of less than 5 percent. Gently sloping land requires little site modification, and is suitable for campsites, parking lots, play areas, and building sites. Drainage is often a problem on land with a slope of less than one percent. Gently sloping land provides the most logical and economically feasible sites for recreation and building sites, and has the least potential impact on the environment from these activities.

4.2.2 Moderate Slopes

This category includes lands with slopes of 5 to 10 percent, which encircle the flood plains of the streams in the project area. Moderate slopes require moderate site modification, have easy grades, and are suitable for building sites, roads, and most movement-based recreational activity (walking, bird watching, horseback riding). Many of the moderate slope areas have vegetation and cover that is well-suited for wildlife habitat. Soil conservation practices should be followed on moderately sloped land.

4.2.3 Steep Slopes

This category includes lands with slopes greater than 10 percent. Steep slopes usually require major site modification. Slopes greater than 10 percent are too unstable or steep for recreational development other than trail usage. Steeply sloping land is expensive to develop, and development can lead to erosion, poor accessibility, and other negative environmental and economic impacts.

Figure 4-1 illustrates these slope categories within the pre-construction project area. Many of the gentle and moderate slope areas are now under water, as can be seen by comparing this figure with the current project map.

4.3 Geology And Soils

4.3.1 Geology

The North Branch of the Potomac River flows generally northeastward in a deep, narrow valley entrenched in the mildly folded, broadly warped rocks of the Allegheny Plateau section of the Appalachian Physiographic Province (Figure 4-2). The Potomac River valley is a broad synclinal basin following the gentle down-plunging axis of the George's Creek syncline (sometimes known as the Potomac syncline). Near the Jennings Randolph site, the syncline divides, with the George's Creek axis veering westward, and the Stony River syncline continuing southwesterly.

Bedrock exposed in the basin is of the Pennsylvania age, and includes the entire Conemaugh and Allegheny series and part of the Pottsville series. There are no peculiar outcrops or geologic formations that would be of unusual interest to the general public except the rare "waffle rock" geology, which was created over a period of 300 million years due to the folding, fracturing, and weathering of the rock.

There is a rare geologic formation that occurs on the project lands. This formation was found by the former residents of Shaw, WV who brought it to the Corps' attention. The formation, referred to as the "Waffle Rock," is a sandstone from the Conemaugh formation of the Pennsylvanian System. The sandstone dates back to the time before the Appalachian Mountains were formed. During the formation of the mountains the sandstone was fractured and folded. The surrounding rock had a very high iron oxide content that by percolating ground water was extracted from the surrounding rock and deposited into the cracks of the sandstone. The iron oxide solidified around the individual quartz grains of the sandstone making a much harder rock. When the formation was eventually exposed to the weather, the sandstone without the iron oxide eroded away faster, due to its softer composition. A portion of the "Waffle Rock" is located at the West Virginia Overlook, and a smaller portion is on display at the Robert W. Craig Campground.

4.3.2 Soils and Erosion

Soils in Garrett and Mineral County were rated by the U.S. Soil Conservation Service (SCS) for suitability for recreational development. Soil properties considered for the rating include depth to bedrock, depth to seasonal high water table, slope, surface texture, and stoniness. Each soil type was rated by the degree of limitation--slight, moderate, or severe--that affects the construction, development, and maintenance of recreation facilities. The degree of limitation indicates the severity of problems expected to be encountered for the specific use: areas of slight limitation are well-suited for extensively used active recreation; areas of moderate limitation have one or more properties that make them less suitable for use, and would be more expensive to develop; and severely limited areas that are poorly suited for extensive recreational use.

The soils at Jennings Randolph Lake vary in depth to bedrock from 1.5 to 3.5 feet, and are typically very stony. Most areas considered to be well-suited for recreational development are either below the conservation lake or in areas of limited or difficult access; other areas are moderately to severely limited. The primary exception is the Robert W. Craig Campground, whose soils are slightly to moderately limited, and therefore suitable for recreational development. Figure 4-3 shows the categories of development suitability for the soils around Jennings Randolph.

The Howell Run facilities, including the Boat Launch and the Picnic Area, are both located in areas that are theoretically poorly suited for recreational development. The boat launch site required a minimum amount of earth moving, and was built up with fill material. Regrading, filling, and reshaping were required in the picnic area, along with construction of access roads and parking lots and subsequent reseeding and planting. As shown by this example, site verification of the soil characteristics must be completed to determine requirements for future development in selected undeveloped areas.

Many areas at the project have moderate to severe erosion problems due to the nature of the soils and the steep topography of the project land. The areas of erosion that affect operation and recreational use of the project are described in the following paragraphs.

West Virginia Access Road. When driving into the project from Rt. 46 the access road is bordered by a steep drop on the lake side of the road, and a steep rising slope on the right side. The right side is prone to slides especially during the spring and winter months, when the ground becomes saturated with water. In the Spring of 1996, this area experienced severe slides which blocked and undercut the road. This area has been fixed, but the potential remains for this type of slide to reoccur at any place along the access road due to the slope of the hill and the erodibility of the soils.

Approximately 2,000 feet from the administration building the hillside is slowly sliding toward the lake. Signs of the slide can be seen in the buckling of the road surface. Presently, the Corps is monitoring the movement of the hillside.

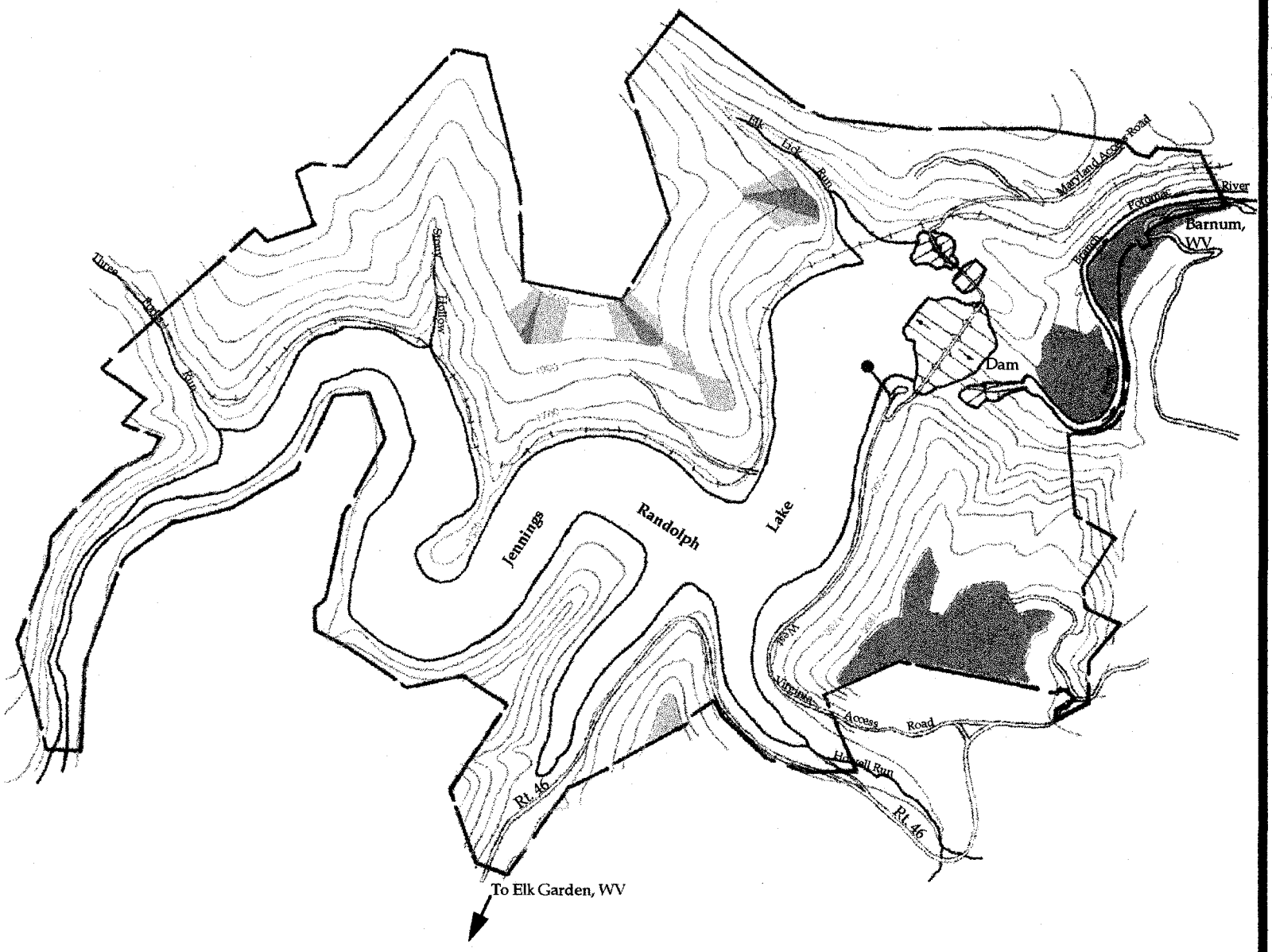

Figure 4-1
Slopes for Recreational Development

Legend

- < 10%
- 10% - 15%
- > 15%

Not to Scale

N

(due to computer manipulation)

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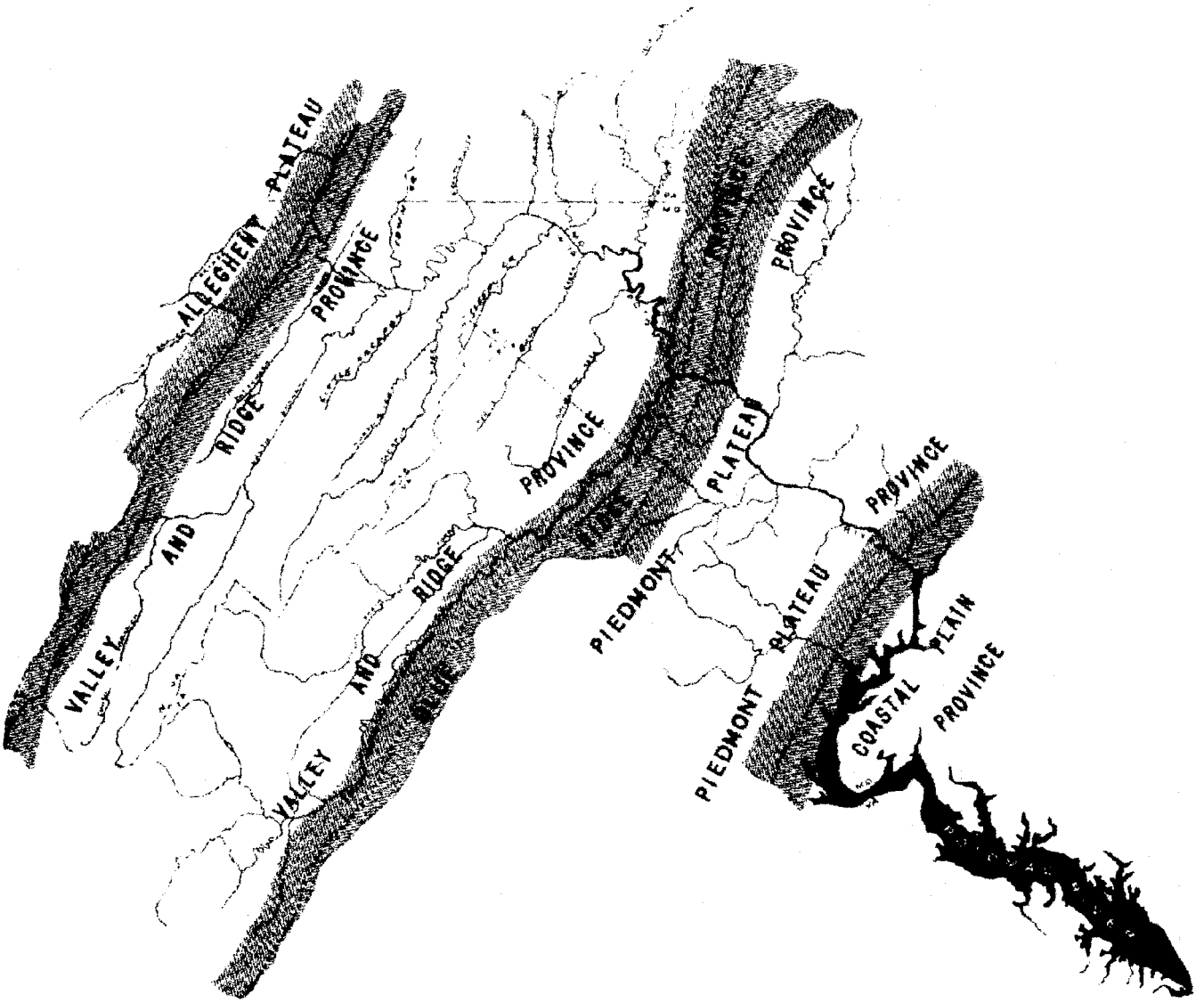

FIGURE 4-2
Physiographic Provinces of the Potomac River Watershed

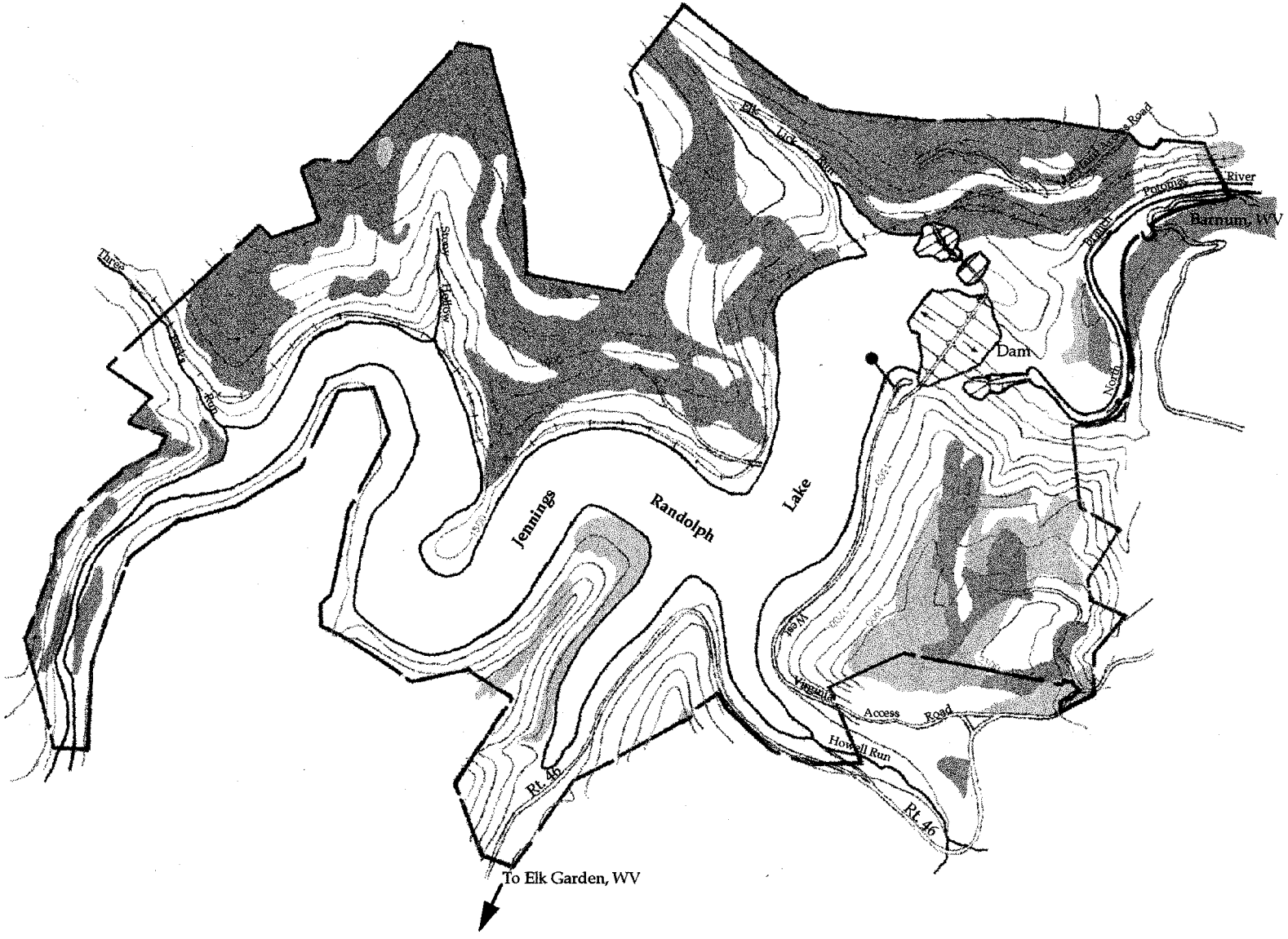

Figure 4-3
Soils for Recreational Development

Legend

- Well Suited
- Suited
- Poorly Suited

Not to Scale

N

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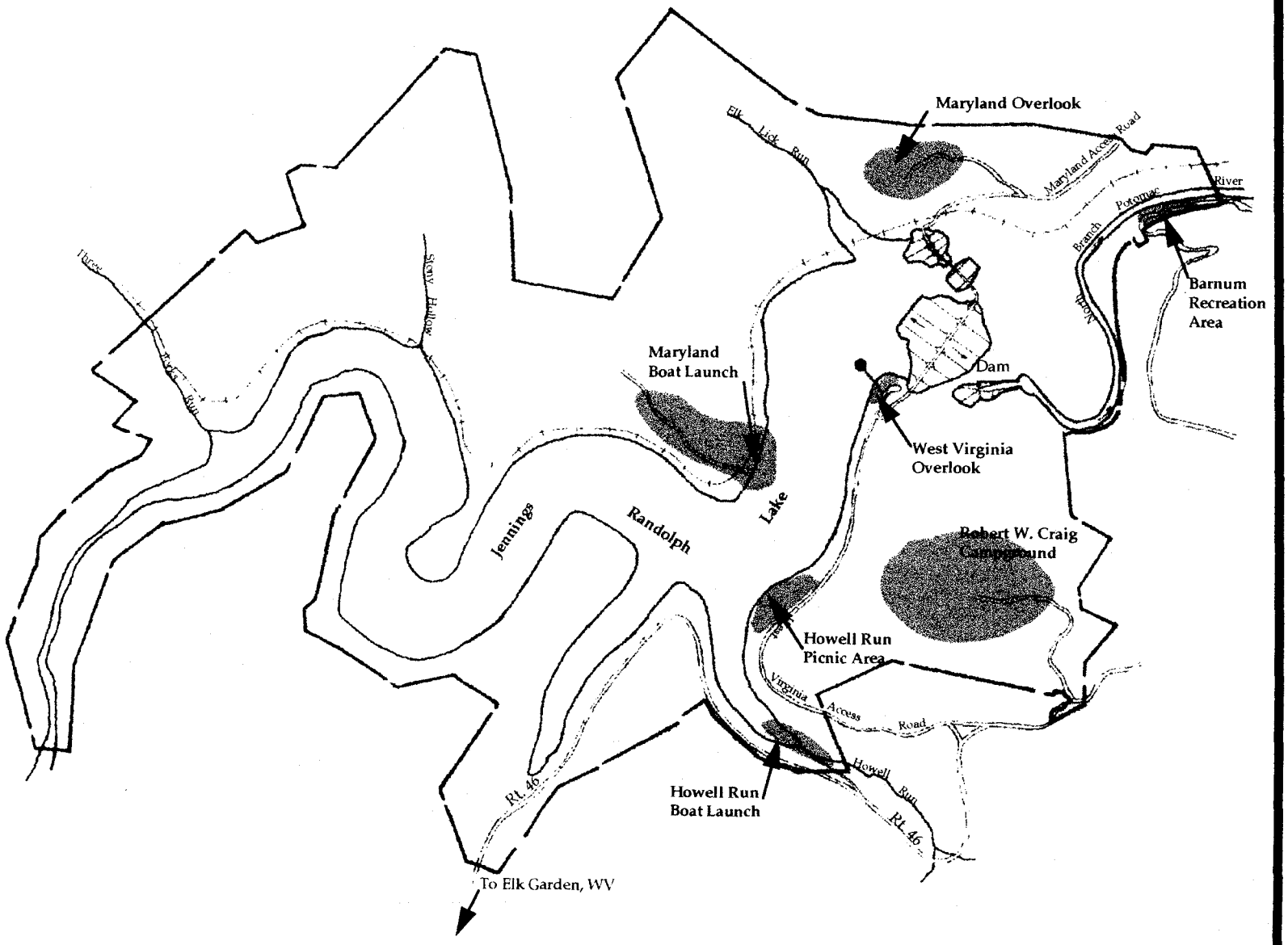

Figure 4-4
Existing Recreation Areas

Legend

Existing Recreation Areas

Not to Scale

N

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Howell Run Boat Launch. A drainage structure located between Rt. 46 and the boat launch, which empties into Howell Run is eroding around the structure and at the outlet headwall. The aprons of the structure are missing, and the outlet is closed due to the build up of sediment. The Corps is investigating ways to repair this structure. This erosion does not prohibit the use of the recreation area.

At the upper end of the parking area, Howell Run has undermined the gabion protection below the parking lot and has begun to undercut the parking lot. A small section of the road has been roped off from traffic; future erosion could severely impact the use of the recreation area.

Howell Run Picnic Area. The slope facing the lake is slowly eroding. The area is vegetated with crown vetch, but not in the eroded areas.

Maryland Overlook Access Road. A slide has caused severe deterioration of the road leading to the Maryland Overlook. The road surface has dropped approximately three feet vertically and moved two feet laterally. The recreation area will remain closed until the road is repaired.

4.4 Climate

The North Branch Potomac River basin is characterized by a temperate climate, with the average annual temperature ranging between 47 and 57 degrees Fahrenheit. The mean annual precipitation for the watershed is about 45 inches. Maximum and minimum amounts of annual precipitation of record at individual stations are approximately 89 inches (Bayard in 1926) and 20 inches (Piedmont in 1930), respectively. The greatest monthly precipitation in the basin occurs from May through August; the least occurs in the late fall and winter. The winters are not considered severe, but are vigorous, since there is usually heavy snowfall. The annual average snowfall is approximately 77 inches. Information on the major storms, floods, and droughts in the watershed can be found in the Draft Master Manual for Reservoir Regulation, Appendix A (1996).

4.5 Water Quality

One purpose of the Jennings Randolph Lake is to provide water quality control in the river downstream of the dam. The regulation of Jennings Randolph Lake for water quality improvement provides numerous benefits to both the in-lake and downstream environment and water users. This regulation produces uniform water quality downstream by eliminating extreme variations in pH and acidity. The impoundment traps and stores sediments and precipitates, allowing better quality water to be released, although the quality is no better than the long-term average quality of the existing river.

Since the early 1900's, the area has been strip-mined for bituminous coal, resulting in wide-ranging environmental impacts. This activity has created continuous problems of erosion, sedimentation, and acid mine drainage, thereby degrading river water quality. For many years, the

North Branch suffered from high acid content, the result of drainage from old, abandoned coal mines and poorly treated wastes from cities, towns, and industries. The major characteristics of mine drainage are the presence of sulfuric acid, heavy metals, and high dissolved solids. However, during the past 15 years, several Federal, state, and local agencies have been working to improve the water quality in the area. At present, approximately 40 miles of the North Branch and 100 miles of tributary streams are still somewhat affected by acid mine discharges. Measures being employed include waste treatment, reclamation of abandoned strip mines, lime treatment at Mount Storm Reservoir, and lime dosers. These measures have improved the water quality in this reach of the North Branch Potomac River to a pH of 6.0 or more.

4.6 Terrestrial Resources

Over 60 percent of the North Branch Potomac River basin is covered by forest. The Savage River State Forest and the Potomac State Forest are the major state-owned forest lands in the basin, and large private stands of timber remain as a part of the basin's hardwood timber industry. Agriculture accounts for approximately 25 percent of the land use in the basin. Farms are mostly small, and production is limited by poor soils. Former and active strip mines cover much of the basin. The remainder of the basin is utilized by industrial sites, rural and urban communities, and transportation corridors.

Approximately 80 percent of the land cover on the project property is deciduous forest. The most common species are American basswood, tulip poplar, sugar and red maple, and red, white, and chestnut oaks. Black maple, smooth azalea, winterberry, redbud, great Solomon seal and flowering dogwood are also found on the project lands. Among the most common species are American basswood, tulip poplar, sugar and red maple, and red, white, and chestnut oaks. Black maple, smooth azalea, winterberry, redbud, great Solomon seal and flowering dogwood are also found on the project lands. Extensive logging during the 19th century and fires on the over-cut areas reduced the number of spruce trees, and continuous harvesting has reduced the average age and size of the trees in the present forest.

Herbaceous rangeland comprises the remaining 20 percent of the terrestrial habitat of the project lands. Grasses and forbs predominate, but shrub/brush vegetation also occurs. Species found within this habitat are yellow poplar, black locust, fire cherry, blackberry, sweet clover, thistle, and crown vetch. Many wildflowers are also found in the area, including snow trillium, jack-in-the-pulpit, violets, painted trillium, and fireweed.

Most of the project lands are managed to retain the existing wilderness environment. Reported wildlife include bald eagle, osprey, white tailed deer, black bear, wild turkey, ruffed grouse, gray squirrel, and cottontail rabbit. However, the "second growth" forest, with its interspersed exposed land, probably limits the area's carrying capacity to support wildlife populations. Therefore, the ecological productivity of the area may not have as much value as other, more pristine, forested river valley ecosystems.

4.7 Aquatic Resources

In an aquatic ecosystem, species composition, relative abundance, and biological condition of the aquatic community are influenced by stream depth, width, velocity, substrate, habitat cover, turbidity, temperature, and chemical composition of the water. Since 1987, the water quality at Jennings Randolph Lake has improved to an average pH of 6.0, and has stayed relatively uniform. The recent water quality improvements are believed to be the result of mine reclamation efforts and state-sponsored water treatment stations upstream of the lake. These improvements have significantly reduced the quantity and toxicity of the mine runoff reaching the lake.

Numerous fish species inhabit the lake, including small mouth bass, lake trout, brown trout, rainbow trout, channel catfish, white sucker, largemouth bass, and walleye. The lake has minimum of shallow water habitat, due to the steeply sloping sides of the river gorge, which effectively diminishes the littoral zone. This factor works to prohibit the growth of aquatic vegetation, thus reducing the food base for resident fish. In addition, the fluctuating pool level and the absence of any other forms of cover such as stumps or downed trees makes the lake less suitable as fish habitat.

When Jennings Randolph Lake was constructed, the North Branch Potomac River was so highly acidic that no thought was given to sustaining a viable fisheries program at the new lake. The improved water quality has provided the previously unfeasible opportunity to create a good quality fishery in the lake and downstream. The present short-term goal of the fish management plan for the North Branch of the Potomac River and Jennings Randolph Lake is to maintain and improve the current fisheries, and the long-term goal is to establish a self-sustaining sport fishery. Both Maryland's and West Virginia's Departments of Natural Resources, in partnership with the Corps of Engineers, have taken an active interest in the lake and the river. The fish management plan, developed for Jennings Randolph Lake by the Corps of Engineers in cooperation with both states, reflects that interest.

4.8 Wetlands

Emergent wetlands have become established downstream of the dam as a result the dam construction, and are fed by incidental seepage and runoff. These wetlands are found in the seepage basins, along the river, and on the face of the emergency spillway.

4.9 Threatened And Endangered Species

The threatened bald eagle is found within the Jennings Randolph Lake project area. A pair of bald eagles established a nest on the southern end of the lake in 1993. Two eaglets fledged each year in 1993 and 1994, and three eaglets fledged in 1995. Currently an area of the lake is restricted from public use by buoys and a buoy line. No other Federal threatened or endangered species are found at the project, as confirmed by coordination with the U.S. Fish and Wildlife Service, dated 17 September 1996.

4.10 Prime And Unique Farmlands

Prime farmland is available land that provides the best combination of physical and chemical characteristics for producing crops. There are no prime and unique farmland soils within the project area. The most common soil types found on the project lands are stony and alluvial soils generally associated with floodplains, woodlands, and wildlife habitat areas. These soils are ill suited to farming.

4.11 Air Quality

The project is located in a rural area that exhibits good air quality. This area is an attainment zone for ozone, sulfur dioxide, particulate matter, carbon monoxide, nitrogen oxides, and lead, as defined by guidance published pursuant to the Clean Air Act Amendments (40 CFR 81.321).

4.12 Hazardous, Toxic, And Radioactive Substances

A hazardous, toxic, and radioactive substance (HTRS) preliminary assessment was conducted for the Jennings Randolph project lands to identify the existence of any HTRS in accordance with the *Water Resource Policies and Authorities Hazardous, Toxic and Radioactive Waste Guidance for Civil Works Projects* (26 June 1992). Coordination with state and Federal agencies indicated that HTRS was not present at the project or in the vicinity of the project area. No evidence of hazardous, toxic, or radioactive material that has the potential to contaminate the groundwater, surface water, or soils in the project vicinity has been found; nor is there any reason to suspect any. HTRS maps developed for the *North Branch Potomac River Water Resources Reconnaissance Study* are located in Appendix A.

4.13 Environmental Justice

This project is expected to comply with Executive Order 12989 - Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). Neither low-income nor minority communities are located near the project lands.

4.14 Recreation

The region around the Jennings Randolph Lake project offers a variety of recreational opportunities in the states of Maryland, Pennsylvania, and West Virginia. Each of these states has numerous public recreation facilities provided by State, Federal, and local governments, which offer a wide range of recreational activities. A listing of these areas is located in Appendix A. These recreational resources have provided an important stimulus to the economic development of the region.

Although the primary functions of the reservoir are to improve water quality, water supply, and flood control, the project is also authorized to provide recreation above and below the dam.

Recreation resources are available throughout the project lands, and consist of opportunities for active and passive recreation. Appendix A includes the number of facilities at each recreation area and the associated carrying capacities. Camping, boating, sightseeing, and fishing are the main recreational attractions at the lake. Except for sightseeing, these forms of recreation can currently only be accessed from the West Virginia side of the reservoir. Developed recreation facilities include the Howell Run Boat Launch, Howell Run Picnic Area, Robert W. Craig Campground, and the Maryland and the West Virginia overlooks. Maryland DNR is currently constructing a boat launch with an associated access road, parking area, and a floating pier on the Maryland side of the lake, which is expected to open for the 1997 recreation season. Downstream recreation consists primarily of whitewater rafting and fishing.

The lake, which offers unlimited horsepower boating, has deep and shallow areas and small coves created by tributaries, providing diverse opportunities for boaters. The only boating constraints are the no-wake zone around the boat launch and the restricted area around the dam and intake tower.

The acidity of the water during the first few years of reservoir operation made it appear that fishing and swimming would never be possible at the lake. Therefore, only one water-based recreational facility was developed. However, reclamation of old mine sites and cleaner, more efficient production at current mine sites have reduced the quantity and toxicity of the mine runoff reaching the North Branch and the reservoir. Maryland DNR, Bureau of Mines, has lime dosers located upstream of the project, which assist in treating acid streams. Because of these efforts, the water quality in the reservoir is now sufficient to support water contact activities. Current lake activities include power boating, non-power boating, water skiing, fishing, and swimming. No formal swimming area exists at the lake; visitors swim at their own risk from boats or various areas on the shoreline.

4.14.1 Howell Run Picnic Area

The Howell Run Picnic Area is a well-maintained open space area, with a mowed lawn and young landscape plantings. The area is benched into a steep slope on the West Virginia side, which gives it an excellent position and a panoramic view of the lake and project lands. The picnic area is only open from dawn to dusk during the recreation season, and is closed during the winter months. It is primarily used for family picnicking and sightseeing, but is also frequently visited by various organizations for field trips and group outings.

4.14.2 Howell Run Boat Launch

The Howell Run Boat Launch is located in West Virginia, in a small cove at the upstream end of Howell Run. The boat ramp is open from April to October, except when the lake level falls below elevation 1,445 feet NGVD, or rises above 1,470 feet NGVD, when the ramp is unusable. In five of the past six years, the lake level has fallen below 1,445 NGVD as early as late July or early August, and has remained below 1,442 feet NGVD through the remainder of the boating season.

4.14.3 Robert W. Craig Campground

The Robert W. Craig Campground is located in West Virginia on a high ridge adjacent to the dam borrow area, approximately 3 miles from the lake. There are no physical connections between the campground area and the lake, but Sunset Trail, located at the entrance to the campground, offers a view of the dam and a portion of the lake. The campground operates May through September, with the highest visitation during holidays and weekends. Activities available in the area include camping, bike riding, hiking, picnicking, and sightseeing.

4.14.4 Overlooks

There are three overlooks at the Jennings Randolph Lake: two in Maryland and one in West Virginia. Normally, these are open year-round from dawn to dusk, and provide opportunities for picnicking, hiking, and sightseeing.

Maryland Overlook #1 is located just downstream of the project, and provides a panoramic view of the dike and emergency spillway structure. Maryland Overlook #2 is located on natural benches in the hillside upstream of the dam, and offers views of the lake and the intake control tower. Public access to this overlook and trail is currently prohibited due to a slide on the access road.

The two-story West Virginia overlook, which also serves as the project's Visitor Center, is located adjacent to the dam and the administrative complex. The view from the overlook encompasses the lake, dam, intake tower, dike, and spillway gates.

4.14.5 Trails

There are three trails at the project that are open from dawn to dusk. Two of the trails are located at the Robert W. Craig Campground. The High Timber Trail, a self-guided tree identification trail approximately 0.7 mile in length, is located directly west of the campground, following the natural contour of the land. The Sunset Trail, a 1.2-mile down-and-back trail, offers a panoramic view of the dam and lake. The trail winds through a wooded area, across a small stream, and through the old quarry area of the project, where roughly 85 percent of the earthen fill for the dam was obtained.

The third trail, Songbird Trail, is located on the Maryland side, and begins at Maryland Overlook #2. Songbird Trail was constructed in 1988. The trail is 1/4 mile long and ends at a waterfall and pond area that has benches, bird feeders, and squirrel feeders. As of this writing, public access to this trail is prohibited, due to a slide on the access road.

4.14.6 Downstream Recreation Resources

All fishing and recreational activities are restricted for approximately 1 mile downstream of the Jennings Randolph Dam. From that point on, anglers may choose any accessible public spot along the river for public boating and fishing. In 1990, Mineral County Parks and Recreation Commission (MCPRC) became a non-Federal sponsor to develop a downstream whitewater rafting/canoeing/kayaking and fishing access area near Barnum, West Virginia.

Since 1982, the Corps has received requests from various outfitting companies and canoe clubs to make scheduled whitewater releases from the project. In 1988, through the Water Resources Development Act of 1988, Congress added downstream recreation enhancement as an authorized project purpose at Jennings Randolph Lake. There are four tentative annual releases for whitewater events, subject to water availability. These events usually occur on the last two weekends of April and the first two weekends of May. These releases are normally pre-announced to inform any interested parties. In 1995, it is estimated that 600 to 700 whitewater enthusiasts participated in the events.

4.15 Aesthetics

Aesthetic resources at Jennings Randolph Lake include the lake, upstream and downstream river reaches, steep wooded hillsides, and all developed areas associated with the project. These aesthetic resources can be broken down into two categories, created and natural. The created elements include the recreation facilities, dam, and infrastructure. Natural elements include the wooded hillsides, upstream and downstream reaches, lake, and lake shoreline.

The project lands offer more natural aesthetic opportunities than does the rest of the regional landscape. The habitat evaluation conducted as part of the unpublished *Draft Jennings Randolph Lake Reallocation Report, Feasibility Study* (1996) identified two major terrestrial habitat types on the project lands: deciduous hardwoods (78 percent) and herbaceous range lands (21 percent). The two areas provide habitat to support a diverse variety of wildlife, and have been classified as being in good condition.

Most recreation facilities have been strategically sited to take advantage of natural features, and other areas have been created to blend with the natural context of the lake. For example, the Howell Run Picnic Area and the three overlooks are located on benches above the lake, on steep hillsides. Although the benches are artificial, they appear as natural features in the landscape, and are accented by the development of well-maintained passive recreation areas. The Robert W. Craig Campground is located on top of a mature wooded ridge above the lake, and the campsites and other support facilities are laid out to fit with the existing contours and wooded areas.

Among the created elements in the landscape at Jennings Randolph, the dam is probably the most unnatural in appearance. Its shape, size, absence of vegetation, and rock placement (rip rap) strongly contrast with the surrounding environment. Drawdowns of 50 feet or more also magnify

the visual contrast. The pattern of Jennings Randolph Lake, which is relatively narrow and sinuous, produces a series of bends and limiting views that adds to the visual variety of the surrounding steep, forested terrain. When the lake is below full conservation pool, the shoreline is devoid of any vegetation and detracts from the overall visual experience.

The area directly below the dam has also been considerably modified by construction. The stilling basin and dam strongly contrast to the surrounding area, which was once a wooded river bluff setting. The adjacent land is a successional meadow, which aids in softening the appearance.

The upstream area of the project has also been modified, but not as drastically as the downstream area. The mountain on the Maryland side of the lake was terraced to relocate a railroad line, and the land directly adjacent to the lake and Three Forks Run was used as a spoil area. Presently, the spoil area is in primary succession, which lessens the visual impacts. The old railroad bed and poured concrete bank stabilization slabs are located on the West Virginia side. The old bed is overgrown and therefore unobtrusive, but the concrete slabs are quite visible and visually conflict with the natural surroundings.

4.16 Periodic Effects Of Existing Reservoir Operations

As mentioned previously, the Jennings Randolph Lake project was originally authorized for flood control, water quality, water supply, and recreation. Reservoir operations for these purposes create periodic changes in lake level that affect recreation facilities and activities, and aesthetic experience. These temporary effects result from both the reservoir drawdowns and from flooding events, and are more visually apparent during the winter and spring, due to the degree of physical change and the duration of the drawdowns. This section defines those operations which have an effect on the existing resources at the project.

4.16.1 Drawdowns

Jennings Randolph Lake at full conservation pool is 1,466 feet NGVD. Lake elevations usually begin to drop during the later part of the recreation season. The only recreation facility affected by drawdowns is the Howell Run boat launch, which is inoperable at and below elevation 1,445 feet NGVD. The boat launch is typically inoperable from late August to middle February, which affects the last 3 to 4 months of the boating season, when the weather is still warm and suitable for such activities. Additionally, water-based recreation supported by the boat launch is also affected, including leisure boating, power boating, water skiing, and boatside fishing and swimming. In contrast, the Maryland boat launch was designed and constructed with current operation levels in mind. The boat launch is usable from elevation 1,425 to 1,480 feet NGVD. Therefore, this boat launch is likely to be operable for more of the year than is the Howell Run boat launch.

The existing fluctuation pattern also affects nature-based recreation resources, particularly the lake fishery. The shoreline between elevations 1,466 and 1,408 feet NGVD is nearly devoid of

submerged and emergent aquatic vegetation, due primarily to the long period of exposure during drawdowns. Such drawdowns also result in reduced cover, lower nutrient productivity, and poorer habitat for fish.

The greatest visual impact from the drawdowns is the unvegetated band that is exposed between the summer pool elevation and the successive drawdown pool elevations. This band is void of any vegetation, and can have a horizontal transition as great as 100 feet. The lack of vegetation and the gravel texture and color of the band significantly conflicts with the aesthetics of the natural surroundings. While these visual contrasts are significant, it should be noted that such effects occur at a time of year when annual recreation visitation is lowest.

The positive recreational effect of the drawdowns is the educational experience they can provide. The visual impact of the drawdowns illustrates the effect that droughts and human consumption can have on the environment. Placards, literature, and other education tools help visitors to better understand these impacts.

Other positive effects of drawdowns occur during water release itself. First, the water released is of a higher quality than that which would have flowed down the Potomac River had the dam not been constructed. This higher-quality water has significantly contributed to the revitalization of the downstream cold water fishery. Secondly, white water rafting, canoeing, and kayaking have recently become popular sports in the area as a result of the water quality releases.

4.16.2 Flooding Events

Flood events cause periodic short-term inundation of nature-based recreation resources. At Jennings Randolph Lake, as in most of the North Branch Potomac River, most flooding occurs during late winter and early spring, although flooding events can and do occur throughout the year. Most of the winter and spring flood control operations at the lake have little direct effect upon project visitation, because recreational facilities are not used during this time of the year.

The effects of flooding at the lake can be considered positive or negative, depending upon the viewer's criteria. Flood events normally cause the lake level to rise with water discolored by increased sediment load and debris. After the lake level returns to its normal pool, some sediment and debris remains along the edge of the lake and in the water itself. This sediment affects the visual quality of the lake until it is removed, is covered with vegetation, or settles to the bottom. Except for the deposition of mud and debris, the temporary rise in the lake elevation does not necessarily detract from project aesthetics. Viewers may enjoy the larger size of the lake during the flood stage, or may appreciate the flood control action itself. In addition, by reducing the exposed height of the dam, flood events also bring it more into scale with the reservoir.

Nature-based recreation resources at Jennings Randolph Lake do not appear to be affected by flood events to the same degree as do the developed recreation facilities. There are no significant adverse effects on fish or wildlife resources resulting from flood events, due to the brief duration

of these events. However, sustained high discharge following a flood event can cause nitrogen supersaturation of the outflow, which can result in high fish mortality in the stilling basin trout pens.

4.17 Cultural Resources

Historically, the project area has been affected by extensive ground disturbance from past surface and pit mining operations; timber harvesting; reservoir and dam construction; relocation of road, railroad, and utilities lines; and borrow and spoil areas associated with construction and relocation. The original spruce-fir and northern hardwood forest was reduced by 19th century large-scale logging, followed by fires in the cut-over areas. Coal mining has been extensive in the region for many years. Abandoned strip mines and timber harvesting on steep hillsides has exposed the land, contributing to erosion, sedimentation of streams, and acid mine drainage.

During the construction of Jennings Randolph Lake and dam, the land was cleared to ground level between elevations 1,395 and 1,469 feet NGVD. Except for removal of downed timber, no land was cleared below 1,395 NGVD. Numerous stockpile areas were created, both upstream and downstream from the dam; a practice that affected the ground surface and vegetation in these areas. Construction associated with the relocation of the Western Maryland Railroad tracks to the Maryland shore also caused extensive disturbance to shoreline areas above the conservation pool elevation. In addition, the communities of Shaw and Barnum, which represented economic development of the coal and timber industries, and all structures and dwellings within the lake, were razed in preparation of the dam construction.

In 1979, the Baltimore District performed a Phase I cultural resources investigation of the Jennings Randolph Lake project lands as part of the original reservoir and dam construction. This investigation was conducted in accordance with Section 106 of the National Historic Preservation Act of 1966, and its implementing regulation 36 CFR 800, "Protection of Historic Properties." Two previous investigations, in 1967 and 1970, interviewed residents that had collected a variety of Middle Archaic to Woodland Period projectile points on the floodplain within the reservoir boundaries; however, no sites were located during a surface inspection.

The District's 1979 investigation, conducted by Quinn and Gardner, assessed and documented prehistoric and historic resources by conducting a review of the existing literature and archival sources, cartographic review, interviews with persons knowledgeable of the area, and field examination (including auguring and shovel testing) of the project impact area between elevations of 1,330 feet and 1,500 feet NGVD. No sites were located during the surface inspection of the North Branch Potomac River floodplain area (Quinn and Gardner, 1979). The field investigation concluded that the project lands were largely disturbed by strip mining and lumbering operations.

The Draft Jennings Randolph Reallocation Reconnaissance report (1989) identifies three types of sensitive areas, but concludes that the potential for significant historic and pre-historic cultural resources in the Jennings Randolph project area is low. Consequently, the report proposes that a

limited Phase I investigation of the sensitive areas be accomplished during the next (feasibility) phase of the study.

The Phase I investigation was accomplished in 1991 for the unpublished Jennings Randolph Feasibility Report. Based on the reconnaissance study, sensitive areas were identified as stable alluvial flood plain surfaces, higher terraces, and rock overhangs located between elevations 1,466 feet and 1,484 feet NGVD. Map review indicated that potentially sensitive areas exist in the West Virginia study area at Howell Run, Deep Run, Chaffee Railroad Siding, Stone Cliff downstream of Chaffee, and the upstream end of the North Branch Potomac River, as well as in the Maryland study area at Three Forks Run, Stony Hollow, and Elklick Run. These areas were subject to a pedestrian survey and shovel test survey. Shovel tests were excavated in 15-meter intervals along single transects. All excavated soils were screened through one-quarter-inch mesh.

The results of the Phase I investigation determined that there are no significant historical artifacts or sites below elevation 1,484 feet NGVD within the project boundaries. Elevations below 1,466 feet NGVD were surveyed prior to project construction, and the project area between 1,466 and 1,484 feet NGVD was surveyed during the study for reallocation of the project. Also, no historic architectural resources were identified within the project boundary. These findings were reported to the Maryland and West Virginia State Historic Preservation Officers; letters of concurrence are included in Annex A.

4.18 Social And Economic Setting

4.18.1 Land Use

Table 4-1, in Appendix A presents the total land area and acreage of each land use type for the states and selected counties of Maryland, Pennsylvania, and West Virginia. These data are derived from 1990 information for the area within the Potomac River basin. For all counties in this area, forest was the dominant land use. This condition reflects the undeveloped nature of the region. Cropland or pasture land accounted for up to 14 percent of the total area of all counties within the market area in Maryland, Pennsylvania, and West Virginia. Urban land use accounted for less than 12 percent of the total area in all counties and West Virginia, while Maryland's urban land use was higher, due to the more highly developed areas surrounding Washington, D.C. These data are presented in Table 4-2, in Appendix A.

The State of Maryland Office of Planning updates land use information every 4 years. Unfortunately, the 1994 data was not available for this analysis. As shown in Table 4-3, in Appendix A, a significant change between the 1985 and 1990 data occurs in Garrett County. This county experienced a greater than 50 percent increase in urban land use over the 5-year period, primarily due to the urbanization of the Frostburg/Cumberland area. The States of West Virginia and Pennsylvania, unfortunately, do not have similar data for comparison.

4.18.2 Population

Historic and projected population data from 1990 to 2040 were reviewed for the three states in the Jennings Randolph market area. The information found in this section is listed by the ten counties which define the market area: two Maryland counties(Allegany and Garrett), six West Virginia counties (Grant, Hampshire, Hardy, Mineral, Morgan and Tucker), and two Pennsylvania counties (Bedford and Somerset). These areas are within the Bureau of Economic Analysis (BEA) regions BEA-016, BEA-020, BEA-009 and Metropolitan Statistical Area-(MSA) 1900. To facilitate regional economic analysis for the Jennings Randolph area it was necessary to look at how the region was divided into BEA geographical areas. The BEA looks at inter-area population movement by region.

Table 4-4, in Appendix A, presents population projections for the years 1990 through 2040, derived directly from the Regional Office of Planning for Maryland, Pennsylvania and West Virginia. These projections indicate level or steady growth for all BEA regions. However, there is substantial variation among regions. While both the United States and Maryland are predicted to increase in population by more than 9 percent, West Virginia's predicted growth is -0.2 percent by the year 2000, and +6.8 percent by 2040. Pennsylvania's growth over the same period is predicted to be more than +14 percent. It should be noted that growth predictions for the years 2000 through 2040 was not available for the State of West Virginia, so therefore the numbers were extrapolated for those years.

4.18.3 Employment

Total employment is predicted to increase substantially for the United States and Maryland from 2000 to 2040 (Table 4-5, Appendix A). However, the percent employment in West Virginia is predicted to have only 5 percent growth by the year 2000, with an overall decrease by 2040. All BEA regions in the study area show total employment growth over the next 40 years, with most of this growth predicted to occur in the next 12 years. Peak employment is predicted to occur by the year 2010, after which there is a either a decrease or a leveling in total employment predicted. There were no similar predictions available for Pennsylvania.

4.18.4 Households and Income

Information on household formation, percent change in total households, and the average number of persons per household between 1980 and 1990 is presented in Table 4-6, in Appendix A. For the United States, Maryland, West Virginia, and Pennsylvania, approximately 72 percent of total households are family, as defined by the U.S. Census Bureau. Garrett County, along with the six West Virginia counties, had the highest percentage of family households (75 percent), while Allegany County, Maryland, had the lowest (69 percent).

The percent change in total households between 1980 and 1990 varied between the states and counties (Table 4-7, Appendix A). The United States and Maryland had an increase in total

households between 1980 and 1990; 14 percent and 20 percent, respectively. West Virginia exhibited a slight increase, with less than 1 percent total household growth. Except for Allegany County, which had a slight decrease in total household growth, the other counties in Maryland and West Virginia exhibited growth of between 5 and 23 percent in total households for the 10-year period. Information for Pennsylvania was not available.

The average number of persons per household is given in Table 4-6. For the United States, the states of Maryland and West Virginia, and the five counties for which data was available, the average number of persons per household decreased by an average of 7.5 percent between 1980 and 1990. These data indicate a trend towards smaller households. Information for Pennsylvania was not available.

For all regions, per capita income is predicted to grow substantially in the next 50 years. By the year 2040, income is predicted to increase between 50 and 60 percent in the study area. Both the United States and Maryland are predicted to grow at similar rates, while income in West Virginia is predicted to grow at a lower rate. The growth rate of per capita income is greatest in BEA-020 and least in MSA-1900. This reflects the increases in both population and total employment in more developed regions such as BEA-020 and BEA-016. Information for Pennsylvania was not available.

4.19 Most Probable Future Without Project Conditions

Without implementation of a recreational development at Jennings Randolph Lake, it is expected that there would be little change from current environmental trends discussed above. The lake would continue its normal reservoir operations, and topography, water quality, wildlife, and other natural features of the project would remain the same without recreational development. The condition of wetland and terrestrial resources near the lake would change in the future due to natural ecological succession. Trees and shrubs on the Jennings Randolph Lake project lands would become more numerous and larger in some areas that are now dominated by shrubs or herbaceous vegetation. If recreational development at Jennings Randolph Lake remains unchanged, the aquatic habitat in the reservoir and downstream is expected to continue as it now is. Water quality within the reservoir is also expected to remain the same, or improve slightly over time.

There is a significant projected population and income growth in the region. The impact of this growth is likely to include increased demands for recreational resources. Without recreational development, the Jennings Randolph Lake project would be unable to meet this increased recreational demand. Additionally, the existing facilities will have a higher rate of use due to the increased recreational demand. This increased use will deteriorate the facilities more rapidly, resulting in higher required maintenance costs.

SECTION 5

PROBLEM IDENTIFICATION

5.1 Introduction

This section discusses the problems and needs existing at the Jennings Randolph Lake project. These problems have been divided into four sub-sections for ease of discussion.

5.2 Operations

While operations at the project are minor in scope and generally very good, some possible management improvements have been identified by operations staff at the lake, state Department of Natural Resources personnel, and previous Corps of Engineers studies. These improvements are summarized in the following sub-sections.

Many areas at the project have moderate to severe erosion problems due to the nature of the soils and the steep topography of the project land. The areas of erosion that affect operation and recreational use of the project are described in the following paragraphs.

West Virginia Access Road. When driving into the project from Rt. 46 the access road is bordered by a steep drop on the lake side of the road, and a steep rising slope on the right side. The right side is prone to slides especially during the spring and winter months, when the ground becomes saturated with water. In the Spring of 1996, this area experienced severe slides which blocked and undercut the road. This area has been fixed, but the potential remains for this type of slide to reoccur at any place along the access road due to the slope of the hill and the erodibility of the soils.

Approximately 2,000 feet from the administration building the hillside is slowly sliding toward the lake. Signs of the slide can be seen in the buckling of the road surface. Presently, the Corps is monitoring the movement of the hillside.

Howell Run Boat Launch. A drainage structure located between Rt. 46 and the boat launch, which empties into Howell Run is eroding around the structure and at the outlet headwall. The aprons of the structure are missing, and the outlet is closed due to the build up of sediment. The Corps is investigating ways to repair this structure. This erosion does not prohibit the use of the recreation area.

At the upper end of the parking area, Howell Run has undermined the gabion protection below the parking lot and has begun to undercut the parking lot. A small section of the road has been roped off from traffic; future erosion could severely impact the use of the recreation area.

Howell Run Picnic Area. The slope facing the lake is slowly eroding. The area is vegetated with crown vetch, but not in the eroded areas.

Maryland Overlook Access Road. A slide has caused severe deterioration of the road leading to the Maryland Overlook. The road surface has dropped approximately three feet vertically and moved two feet laterally. The recreation area will remain closed until the road is repaired.

5.2.1 Wildlife Management

Because there is an abundance of wildlife and wildlife habitat in the area of Jennings Randolph Lake, no formal management plan has been developed. Currently, the management practices used by Maryland and West Virginia DNRs, while not specifically designed for Jennings Randolph Lake, adequately serve the project's needs.

5.2.2 Aquatic Habitat and Fisheries Management

Gas Supersaturation. Gas supersaturation of outflow water from the dam occurs when releases exceed 1,000 cubic feet per second. Gas supersaturation can cause gas bubble disease in fish. Adverse impacts to the trout located in the net pens has been observed during high outflow events.

Departments of Natural Resources. Jennings Randolph Lake spans the border between West Virginia and Maryland. Because of this, both states have an active interest in the fishery of the lake and the North Branch Potomac River between Kitzmiller, Maryland and Luke, Maryland.

West Virginia is mainly interested in the lake itself, although for the last few years they have also been stocking a short reach of the river downstream of the dam in a cooperative effort with Maryland. The recommendations proposed by West Virginia are, 1) Threadfin Shad should be stocked annually until the forage base increases dramatically; 2) the feasibility of establishing an invertebrate forage should be pursued; and 3) the Corps should open the lake to boaters during the winter and early spring to improve catch rates for walleye.

Maryland concentrates its efforts downstream of the dam; primarily with the trout pens and the North Branch Potomac River. One of their concerns is the problem with gas supersaturation and its effect on the trout in the pens and the natural fish in the river immediately downstream of the dam.

5.2.3 Water Quality Management

No management improvements have been identified for this activity.

5.2.4 Facility Maintenance Management

No management improvements have been identified for this activity.

5.3 Human Environment

The primary problem identified for the human environment in the Jennings Randolph Lake region is an unmet need for quality recreational resources. The demand for recreational resources in the area has been thoroughly analyzed as part of this study. The purpose of this analysis was to estimate the demand and related benefits associated with improved recreation facilities at Jennings Randolph Lake. The lake has a current estimated annual visitation rate of 75,000 per year. Local and project officials believe that visitation could significantly increase with the addition of new recreation facilities and improved access to the lake, and have positive impact on the local economy. Many visitors using the park say that they go there because it is remote, uncrowded, and unspoiled. Others have expressed a desire to see additional activities and convenience facilities located at the site to improve the overall recreation experience.

5.3.1 Market Area Population

According to information collected at Jennings Randolph Lake from 1989 to 1994, 75 percent of visitation comes from counties within a 60-mile radius of the project. Of the remaining 25 percent, 24 percent comes from counties between 61 and 100 miles of the project and 1 percent comes from counties between 101 and 200+ miles of the project. The total calculated market area population for the project is 1,614,000.

5.3.2 Recreation Demand in the Market Area

According to the West Virginia, Maryland, and Pennsylvania State Comprehensive Outdoor Recreation Plans (SCORPs), camping, hiking, nature walking, fishing, boating, swimming, bicycling, skiing, and sightseeing were identified as activities that ranked highest among state residents who participated in at least one of these activities in 1992. The SCORPs also list outdoor activities that were of most interest to nonresidents (sightseeing, rafting, hunting, fishing, festivals, cultural sites and golf). Camping, fishing, hiking, walking and some boating and canoeing are activities that are currently accommodated at Jennings Randolph.

The Maryland, West Virginia, and Pennsylvania SCORPs state that there continues to be a need for facilities to accommodate activities such as boating, hiking, walking, picnicking, and swimming. The following analysis explains how the demand for recreation facilities in the market area surrounding Jennings Randolph Lake was estimated, using former Corps of Engineers studies, market area SCORPs, and visitation data collected at Jennings Randolph Lake. A summary of recreation demand is presented in Table 5-1.

5.3.3 Recreation Facility Supply in the Project Area

Current recreation facilities at Jennings Randolph support eight outdoor activities. These activities include boating (power boats and canoes), camping, fishing, hiking, hunting, picnicking, sightseeing, and walking. The existing recreation facilities that accommodate these eight activities are presented in Table 5-1.

Jennings Randolph Lake contains 952 boating surface acres. Of these acres, 60 percent can be used for limited power boats, including unpowered boats and canoes, at a density of 4 acres per boat. The other 40 percent are used for unlimited power boats at a density of 9 acres per boat.

5.3.4 Unmet Recreation Needs in the Project Area

Table 5-1 presents an analysis of unmet recreational needs in the project area. It is clear that marina boating, canoeing, camping, golfing, hunting, picnicking, and walking are activities which are underdeveloped in the region of Jennings Randolph Lake. In addition, although no specific data could be developed, the Maryland and West Virginia SCORPs both identify pool swimming and limited power boating as needing more facilities. Any of these unmet needs could be partially fulfilled at Jennings Randolph as part of the recreational development projects proposed for the lake.

5.4 Natural Environment

5.4.1 Acid Mine Drainage

Acid mine drainage (AMD) has been an issue for many years in the North Branch Potomac River watershed. AMD is created by a chemical reaction which occurs when water seeps through abandoned mine areas before coming to the surface. AMD is responsible for lowering the pH of receiving streams to levels which are dangerous to the inhabitant flora and fauna, and releasing other toxic chemicals into the environment.

Several factors have contributed to the improvement of water quality in the lake and downstream since 1981. Active mines upstream have been forced by regulations in both states to improve treatment of discharges. Reclamation has occurred on some old inactive mines. The Virginia Electric Power Company limes the water discharged from Mount Storm Lake to help reduce acidity. The great depth of Jennings Randolph Lake (250 feet in places) allows the acid to stratify in the lake. All of these factors combine to produce a lake and a portion of the downstream river capable of supporting a sport fishery at this time.

5.4.2 Wetlands

Due to the steep topography at Jennings Randolph Lake, no wetlands are present along the lake itself. Wetlands have established downstream of the dam, surrounding seepage ponds and in the spillway swale. Although they have established as a result of dam operations, the wetlands perform functions such as sediment retention and nutrient filtering, and provide wildlife habitat.

5.5 Physical Environment

The problems with the physical environment at Jennings Randolph Lake are associated primarily with slumping and erosion. The physical qualities of the soils, rock, and topography of the project lands make the areas prone to these problems. Roads through the project lands are particularly prone to the effects of these problems. Periodic maintenance is required at many roads and parking areas to remove soil and stabilize adjacent banks to protect the project roadways.

Table 5-1: Recreation Demand, Supply, and Unmet Need in the Jennings Randolph Lake Market Area

Activity	Total Facility Demand	Existing Facility Supply	Unmet Need
Boating (Marina)	205 lanes	12 lanes	193 lanes
Limited Power Boating	4,500 acres	N/A	N/A
Unlimited Power Boating	300 miles	N/A	N/A
Canoeing	66 lanes	12 lanes	54 lanes
Camping	16,300 sites	827 sites	15,500 sites
Fishing (streamside)	1,300 miles	N/A	N/A
Fishing (docks)	360,300 ft.	N/A	N/A
Golfing	2,400 acres	580 acres	1,800 acres
Hiking	506 miles	687 miles	none
Hunting	111,800 acre	47,624 acres	64,200 acres
Picnicking	22,800 tables	1,729 tables	21,100 tables
Nature/Pleasure Walking	879 miles	687 miles	192 miles
Sightseeing	N/A	N/A	N/A
Swimming (lake)	594 acres	1107 acres	none
Swimming (pool)	N/A	N/A	N/A

Note: A designation of "none" in the Unmet Need column indicates an oversupply of this type of activity in the market area. A designation of "N/A" indicates that information was insufficient to make the determination of need. It should be noted, however, that both pool swimming and Limited Power Boating are considered by Maryland and West Virginia to be insufficient to the current demand.

SECTION 6

OBJECTIVES AND CONSTRAINTS

6.1 Resource Use Objectives

The Corps' objectives for Jennings Randolph Lake project can be broken down into three categories: authorized operations objectives, natural resources objectives, and recreation objectives. Each of these categories is summarized below:

6.1.1 Authorized Operations Objectives

The lake's authorized operations objectives are (1) to reduce downstream flood damages, (2) to improve downstream water quality, (3) to provide a source of water supply for area municipalities and industry, and (4) to provide public recreation opportunities.

6.1.2 Natural Resources Objectives

The primary objective for the natural resources at Jennings Randolph Lake is to maintain as natural a condition as possible. This objective is currently met by project staff and their non-invasive wildlife, fishery, and forest management approach. This approach helps maintain ecological integrity and biological diversity on the lake property, and provides an excellent preserve for species that may have difficulty surviving in more developed areas.

6.1.3 Human Environment Objectives - Recreation

The primary objective for recreation resources at Jennings Randolph Lake is to maximize the visitor's enjoyment of the natural and created resources at the site. The project staff wants visitors to have a safe, enjoyable, and fulfilling experience at the lake and to go home with a sense that the lake is someplace beautiful and special.

6.2 Future Project Objectives

Projects to be undertaken in the future at Jennings Randolph Lake will need to meet at least one of the objectives stated in Section 6.1. The optimal project will achieve objectives in all three objective areas, without negatively impacting any one area.

6.3 Constraints

Constraints are existing conditions that limit the variety of potential projects at a study site. Constraints at Jennings Randolph Lake can be organized into two categories: operational constraints and physical constraints.

6.3.1 Operational Constraints

Project Operations. Safe and effective operation of the dam is the primary operational objective. This objective must take precedence over any recreational development or use of the lake and project lands. No construction or other development may reduce or impede the operation of the dam or lake, even for a short time. This constraint means that there are strict limits on any development that would require changing the usual lake level or the drawdowns for water quality. It also means that recreational development cannot occur to such an extent as to overtax the abilities of the operational staff to perform their dam-related functions.

Water Quality Releases. Lake drawdowns for water quality downstream occasionally affect the current recreational use of the lake. The West Virginia boat ramp, for example, is unusable if the water is at 1,420 feet NGVD (46 feet below the normal recreational pool at 1,466 feet NGVD). These releases are necessary to meet the authorized purpose of the lake, but they create a recreational limitation. Any future projects will have to account for the possibility of these occasional low water level (down to 1,320 feet NGVD) periods.

Flood Retention. On the other side of the coin, the flood damage reduction purpose of the lake means that during particularly high flows, water will be held in the lake, and the lake level will rise -- sometimes significantly. The West Virginia boat ramp, for example, is unusable when the water is above 1,500 feet NGVD. Any future projects at the lake will have to account for the possibility of these occasional flood conditions.

Minimum Water Flow. The dam is operated to create a minimum flow velocity of 93 cfs at Luke, Maryland, by maintaining a minimum outflow of 50 cfs. The pool cannot be lowered to below 1,320 feet NGVD, however, due to the minimum water storage needed to ensure water quality in the lake. Long releases for events such as whitewater rafting, then, are a possibility only in years when the water supply to the reservoir is high enough to retain the minimum pool level while releasing a sufficient quantity of water. This possibility cannot be relied upon.

No Wake Zone and Restricted Area. The existing no wake zone around the boat launch is a safety measure which that remain in place. The restricted zone adjacent to the dam and the intake tower is also a safety measure, which restricts the area of the lake available for boating, swimming, and fishing. No project alternatives will be acceptable within the restricted zone.

Access. Operational staff must have free and easy access to all developed parts of the project for emergency use. Recreational development cannot occur to such an extent as to overcrowd the roads to and within the project lands such that emergency operations are impossible.

6.3.2 Physical Constraints

Topography and Soils. The project lands comprising the Jennings Randolph project are located on steep terrain with very stony soils. Rockslides and landslides are a possibility near the steeper slopes on the project lands. Very little of the project area is flat enough to accommodate roads, structures, or parking lots.

Infrastructure. The project lands currently do not have the infrastructure to accommodate growth of new recreation areas. There is no public water, sewer, or trash collection. The roads to and within the project lands are typically two lanes and narrow, with little room for expansion. Improvements to the existing infrastructure must be incorporated into any new project alternative. Again, due to the topography and soils of the area, the necessary upgrades may not be possible, thereby limiting development potential at a chosen site.

Western Maryland Railroad. The Western Maryland Railroad is located on the Maryland side, above the lake. The railway traverses approximately 11 miles through the project under a quit claim, which is defined as the transfer of a title, right, or claim to another. Due to the sensitivity and liability of crossing the railroad, access to the lake from the Maryland side was not attempted by the Corps. In March 1997, the Maryland Department of Natural Resources opened a boat launch on the Maryland side of the lake. The railroad crossing includes a signal with flashing lights.

Soils. Prior to construction of the project soil analysis found that areas well suited for development were either below the conservation lake or in areas of limited or difficult access. Analysis for soil and geology of any new recreation area will be performed prior to design of the site.

SECTION 7

ALTERNATIVES CONSIDERED

7.1 Potential Development Features

A comprehensive list of potential development features identified during the master planning process is presented in Table 7-1. This list was developed from information obtained during the visitor survey, during the public meeting, from coordination with local government and resource agencies, and from interviews with the operational staff. Additional potential features were taken from prior studies and from similar recreational areas.

The list of all possible alternatives was then screened to eliminate projects which were considered economically unfeasible, constrained by topography or operations regulations, and politically or publicly unsupported. Those features remaining are listed in bold in Table 7-1. These features were combined into four alternatives based upon the level of recreational intensity anticipated for each. The resulting alternatives include one alternative containing those features which would produce a low level of recreational intensity, one alternative which represents a high level of recreational intensity, and two different alternatives which combine moderate-intensity features.

Alternative 1 is the low intensity alternative. It was designed to include all features which might reasonably be constructed or operated by existing Jennings Randolph Lake staff during the course of their maintenance and operations schedules.

Alternative 2, the high intensity alternative, was designed to create the most highly developed recreational facilities possible at Jennings Randolph Lake.

Alternative 3, the first moderate intensity alternative, was designed to improve the overall overnight stay experience at Jennings Randolph Lake, including existing camping, boating, and picnicking sites and new lodging and swimming facilities.

Alternative 4, the second moderate intensity alternative, was designed to use different features to accomplish the improved overnight stay experience goal.

Table 7-1: Potential Development Features

Water Based Activities:

- **Floating Fishing Piers**
- **Dock/Mooring area**
- **Shore Fishing Area**
- **Marina**
- **Lighting at boat launches**
- Boat Rentals
- Boat Launch near the dam
- **Canoe/Kayak launch area**
- **Slalom Water-ski Course**
- **Slalom Jet-ski Course**
- **Open area downstream of the dam for fishing**
- **Fish Habitat (attractors, stocking)**
- Pier swimming with water markers.
- Bathing platform in the lake (wood/pontoon)
- **Beach/Swim Area**
- **Children's Wading Pool**
- **Swimming Pool**
- Water Slide
- **Small Boat Environmental Water trail: Sites may include Stony Hollow; bald eagle observance areas.**
- **Water taxi**
- Scenic tours
- Ferry from West Virginia to Maryland

Land Based Activities:

- Interpretation Center
- **Expand Visitor Center**
- Interpretive kiosks throughout project lands
- **Tower for eagle observation**
- Cultural heritage sites: Sites may cover the Town of Shaw, AMD, and old strip mined areas
- **Additional hiking trails in throughout the project (away from campground)**
- **Pedestrian Trail from West Virginia overlook to the picnic area and the boat launch.**
- **Access road from campground to West Virginia overlook.**
- Downstream Trail along the rail-to-trail in Mineral County, West Virginia
- **More Picnic Shelters/Areas**
- **Cabins/Lodge**
- **Group Camping facilities**
- **Game Room**
- **Shooting Range**
- **Archery Range**
- **Horseshoe Pits**
- **Volleyball Courts**
- **Tennis Courts**
- **Boat-to-Shore Camping or Picnicking**
- **Playground (small children)**
- **Golf Course**
- **Club House/Pro-shop**
- Miniature Golf Course

Miscellaneous:

- Keep project "natural;" do not add a lot of new elements that will increase visitation
- Plant more trees in the camp ground field area
- **Provide more handicap (ADA compliant) facilities**
- **Expand Infrastructure to include: water at picnic area for rinsing dishes and flush toilets; water and toilets/showers in back loop of campground; water at boat launch.**
- **Equipment Rental concession -- canoes, kayaks, fishing rods, sailboards, paddleboats, rowboats.**
- **Sales concession -- bait, tackle, line, gas, propane, matches, groceries, fire wood etc.**
- Locker Storage
- Laundry facilities
- Upgrade Howell Run Picnic Area
- **Upgrade Robert Craig Campground**
- **Upgrade Howell Run Boat Launch**
- **New recreation areas throughout the project that may include cabins, a lodge, a marina, and a campground.**
- **Wildlife food plots/feeders**
- Shuttle Service from recreation areas.
- **Downstream development**

7.2 Alternatives Formulation

Alternatives for recreational development were developed by listing all potential development features, as seen in Table 7-1, and combining them into Alternatives which satisfied various theme criteria. Alternative 1 was designed to include all features which might reasonably be constructed or operated by existing Jennings Randolph Lake staff during the course of their maintenance and operations schedules. Alternative 2 was designed to create the most highly developed recreational facilities possible. This alternative reflects the recreational development in the North Branch Potomac River Water Resources Reconnaissance Study (1995). Alternative 3 was designed to use different features to improved a visitor's overnight experience. Alternative 4 was designed as an alternative to improve the overall visitor experience at Jennings Randolph Lake, including existing camping, boating, and picnicking sites and new lodging and swimming facilities.

7.3 Description Of Site-Specific Alternative Features

7.3.1 The No Action Alternative:

This alternative includes no additional development at Jennings Randolph Lake. No new construction would occur, and no new activities would be permitted.

7.3.2 Alternative No. 1: Low Intensity

Robert W. Craig Campground

Backloop Vault Toilets - Convert the vault toilets to flush toilets, and provide potable water and showers. This will reduce the demand on the existing facilities in the main campground. These improvements were requested by lake visitors.

Sunset Trail - Extend the trail within the boundaries of the Barrow Area.

Maryland Overlook

Trail - Presently, the Maryland overlook cannot be accessed by the general public due to slides that have washed out the access road. Once the road is repaired, the proposal for this site is extend the Songbird trail.

MD Boat Launch

Fishing Pier - A handicapped accessible fishing pier is proposed at this recreation area to assist visitors, without a boat, to access the water from the Maryland side of the lake.

Howell Run Picnic Area

Trail - Starting at the picnic area, a trail would provide access to the water's edge for fishing.

Picnic Shelter - This feature involves enlarging the existing picnic shelter to accommodate larger groups.

Potable Water - Potable water would be piped from the well that serves the administration and maintenance buildings to a pump at the picnic area.

Howell Run Boat Launch

Upgrades - Changes to the area would include upgrading the vault toilets to a composting toilet system and installing overhead lighting.

Barnum/Downstream:

Cabins - In the area leased to the Mineral County Parks and Recreation Department (MCPRD) a number of cabins would be field sited and constructed.

7.3.3 Alternative No. 2: High Development

Robert W. Craig Campground

Bathhouse - To accommodate the demand for flush toilets and showers on peak weekends the existing bathhouse would be enlarged include additional showers and flush toilets.

Wading pool/fountain - This amenity is envisioned as a small, shallow, bowl-shaped wading pool with a spray fountain in the middle. The pool would be designed for use by small children.

Swimming Pool and Bathhouse - This feature would be located in near the entrance gate and include a pool and bathhouse with showers, restrooms, and changing area.

Camp store - This amenity would reduce travel time to such a service, or allow visitors who camp for extended periods of time to re-stock during their stay, or purchase emergency items. Currently the minimum travel time to a town for this service is approximately 30 minutes.

Recreation Center - Constructing the proposed facility within the actual camping area would be an advantage to visitors by allowing different activities during poor weather days.

Ball Courts - Construction of new or additional facilities such as horseshoe pits, volleyball courts, tennis courts, basketball courts, and would provide entertainment to visitors - adults and children.

Borrow Area

Golf Course - an 18-hole, par 4 course is proposed for this site. The first nine holes would be located on the old borrow area, and the second nine holes would be located adjacent to the Robert W. Craig Campground access road. The layout of the golf course would work with the existing contours and minimize the removal of vegetation to the greatest extent possible.

Golf Club House - a structure to include a pro-shop, snack concession, offices, cart storage, locker rooms, and maintenance area is proposed for this site.

West Virginia Overlook

Visitor Center - This alternative consists of enlarging the visitor center to accommodate interactive displays, presentations, and informational supplies.

MD Boat Launch

Cabins - cabins on concrete slabs with living quarters, kitchen, restroom facilities, and fireplace are also proposed for the hill overlooking the Maryland boat launch.

Marina - This alternative consists of a 15 to 20 slip marina with fuel and oil service.

Howell Run Picnic Area

Beach/Swimming Area - This feature consists of a beach and swimming area. The swimming area would extend into the water parallel to the shoreline due to the steep topography and lake fluctuations. Grading of the area would accommodate a 20 to 40 foot annual lake fluctuation during the swimming season.

Trail - This trail would provide access to the water and will start at the picnic area, and wind down to the water's edge.

Fishing Access - A stepped fishing pier is proposed below the picnic area. The pier would be designed to accommodate the fluctuating pool levels.

General Amenities - The following general amenities are proposed to enhance the picnic area: a telephone or call box, potable water, flush toilets.

Deep Run

Picnic Areas - this feature consists of pull-off picnic areas in Deep Run, located along Rt. 46. Each site would include a picnic table, grill, and parking slot.

Hogback Ridge

Lodge/Convention Center - This alternative consists of a lodge (convention center) and cabins. The lodge would consist of approximately 100 rooms, a conference center, recreation area, and a restaurant. The adjacent cabins would be scattered in the wooded area surrounding the lodge. The cabins would sleep a maximum of 7 people, and include a small kitchenette, full bathroom, and a living area.

Marina - This alternative consists of a marina with approximately 20 to 30 boat slips for use by lodge, cabin, or campground guests. Amenities at the marina would include a concession building, fuel and oil pumps, electric and water on the docks, restroom, boat launching ramp, and car and trailer parking.

Beach and Swimming Area - This alternative consists of a beach and swimming area located at the entrance to the Deep Run tributary with a Bathhouse. The swimming area would extend into the water parallel to the shoreline, due to the steep topography and the lake fluctuations. Grading of the area will probably be required to accommodate the 20 to 40 foot annual lake fluctuation during the swimming season. In addition to the beach a swimming platform with a sliding board would be located 25 yards from the shoreline. The marked swimming area would be restricted and delineated from the main boating area. An adjacent area would be designated for boats to anchor, so that boaters could swim in the marked area and use the swimming platform.

Water Taxi - A water taxi would be provided to shuttle visitors from one recreation area to another.

Camp Ground - This alternative would consist of 20 to 30 standard campsites. Each site would have a parking area, picnic table, lantern post, and electric hookup. Additionally, a centralized bathhouse, coin-operated laundry facilities, playground, and trash facilities would be constructed.

Peninsula B

Boat-to-Shore Camping - A boat-to-shore camping area close to the lake is proposed on this peninsula. A floating pier or mooring area will be installed for use by campers only. Primitive campsites will include pad sites, lantern post, and fire pit.

Barnum/Downstream

Trail - This alternative consists of an 8-mile trail with two canoe access points, foot bridges to cross the river, parking area and two-recreation areas. Recreation areas could consist of picnic tables, a picnic shelter, a restroom, a playground, and primitive camping sites.

7.3.4 Alternative No. 3: Moderate Intensity Option A

Borrow Area

Sunset Trail - This feature includes connection of the Sunset trail to the High Timber trail and extension of the trail to West Virginia Overlook. This trail would include switchbacks for easier trail use and would connect to the West Virginia access road just above the administration buildings.

Group Camping Area - Presently, this site is used for tent group camping. The proposed group camping area would consist of a tent area, tent platforms, fire rings, outdoor seating, potable water, and vault toilet restrooms.

MD Boat Launch

Camping Area: A camp ground located on the hill overlooking the Maryland boat launch is proposed at this area. Campsites would include a camp pad, a grill, a fire ring, and parking area.

Howell Run Picnic Area

Picnic Shelter - This alternative involves enlarging one of the existing picnic shelter to accommodate larger groups.

Trail - A footpath running from the West Virginia overlook along the water to the picnic area with observation or fishing areas along its length is proposed for this site.

Deep Run

Boat Launch - A boat launch for non-power boats or jet-skis to reduce conflict between power boats and non-power boats at the Howell Run Boat Launch is proposed for this site.

Canoe Trail - A canoe trail is proposed along the south side of the lake starting from the proposed boat launch. Markers along the shoreline would identify areas of interest, and markers in the water would delineate the water trail for non-power boats.

Picnic Area - A picnic area located adjacent to the launch is proposed at this site. The site would include picnic tables, grills and parking.

Howell Run Boat Launch

Trail - A footpath would be cleared and marked starting at the Boat Launch to the Picnic Area.

Upgrade - The recreation area would benefit from the following upgrades: potable water, lighting at the launch ramp, telephone or call box, clevis multrium toilets,

Peninsula A

Picnic Area - Pull-off picnic area along Route 46 with a trail leading to the water is proposed for this area. In addition, a trail to the lake with interpretation signs is also proposed. Signs could describe the construction of the dam and lake, information about the soils and topography of the project, past forest and strip mining in the area and on the project lands, and AMD.

Hogback Ridge

Boat-to-Shore Picnic Area - A boat-to-shore picnic area with a small floating pier and mooring area is proposed for this site.

Observation Tower - An observation tower would be placed on the peninsula to serve as an interpretation center for the lake and observation of the nearby eagle nesting and perching area.

Trails - Equestrian trails and adequate parking for cars and trucks and trailers are on the peninsula.

Peninsula B

Beach/Swimming Area - A graded beach and swimming area on the lake is proposed in this area. The beach would be for use by boaters or hikers at the adjoining proposed camp area.

Boat-to-Shore Camping - This alternative consists of 50 primitive camp sites with lantern post and grill, and a 10-boat mooring area.

Miscellaneous

Hunting - The Corps proposes to work with local groups to establish public hunting blinds and tree stands on the project lands.

7.3.5 Alternative No. 4: Moderate Development Option B

Robert W. Craig Campground

Camper/Boat Storage - This feature would provide frequent visitors with a locked storage area for campers or boats. The proposed location of this amenity is at the entrance gate where the old maintenance compound is located.

Camp Store - This amenity would reduce travel time to such a service, or allow visitors who camp for extended periods of time to re-stock during their stay, or purchase emergency items. Currently the minimum travel time to a town for this service is approximately 30 minutes. Additionally, laundry facilities and an indoor game room would be constructed.

Playground - A playground, designed for small children, would provide specialized recreational opportunities for these young visitors. This feature would be located in the backloop of the campground.

Backloop Restrooms - This enhancement would include converting the vault restrooms to a restroom with flush toilets, potable water, and showers. These improvements were requested by lake visitors.

Borrow Area

Sunset Trail - This feature includes connection of the Sunset trail to the High Timber trail and extension of the trail to West Virginia Overlook. This trail would include switchbacks for easier trail use and would connect to the West Virginia access road just above the administration buildings.

Efficiency Cabins and Lodge - Cabins with potable water, flush toilets, electric, and propane for cooking are proposed for this area. They may be temporary (i.e. Yurts) or permanent structures. The central lodge would consist of a larger cabin structure that would be available for group outings.

Howell Run Picnic Area

Beach/Swimming Area - This feature consists of a beach and swimming area. The swimming area would extend into the water parallel to the shoreline due to the steep topography and lake fluctuations. Grading of the area would accommodate a 20 to 40 foot annual lake fluctuation during the swimming season.

Fishing Pier - A stepped fishing pier is proposed below the picnic area. The pier would be designed to accommodate the fluctuating pool levels.

Canoe/Kayak Launch: A graded ramp for use by non-power boats is proposed below the picnic area. Parking for the site would be at the picnic area's existing parking area.

Enhancements - The following general amenities are proposed to enhance the picnic area: a telephone or call box, potable water, flush toilets.

Deep Run

Water-Ski/Jet Ski Slalom Course: A marked slalom water-skiing course is proposed for this tributary.

Peninsula A

Boat-to-Shore Picnic Area - A boat-to-shore picnic area with a floating pier and mooring area is proposed adjacent to the lake.

Hogback Ridge

Shooting/Archery Range: The construction of a hillside shooting or archery range into the hillside is proposed at Hogback Ridge.

Backwater area

Boat-To-Shore Camping Area - A primitive boat-to-shore camping area would include approximately 20 to 30 sites. Each site would have a fire ring, a picnic table, and a site marker. Boat tie-ups would be placed along the shoreline within sight of the camping area. The site infrastructure would include garbage cans, a hand pump well, and compost toilet.

Miscellaneous

Fish Habitat: The placement of fish attractors and habitat structures along the edges of the lake and shallow areas is proposed to enhance the existing fishery.

SECTION 8

ANALYSIS OF ALTERNATIVES

8.1 Purpose

This section identifies and assesses the potential environmental consequences associated with implementation of any of the potential actions highlighted in Table 7-1. This section is intended as the impacts assessment portion of a programmatic Environmental Impact Statement as described in Section 1508.28 of the CEQ Regulations for Implementing NEPA (40 CFR, Parts 1500-1508), addressing impacts in a way that is consistent with the conceptual level of Master Plan design and a Master Plan Update. As the proposed actions are implemented and a detailed design is initiated for the development of each facility, further site-specific NEPA documentation may be required. Specific topics to be explored in future site-specific NEPA documents include vehicle traffic impacts, terrestrial habitats, water quality, and public safety.

8.2 Brief Analysis of Alternatives Effects

8.2.1 The No Action Alternative.

Because no action would be taken, there would be no significant impact to the environmental or cultural resources. However, if no action is taken, there will be a negative impact to the region's social and economic resources. The potential for additional income to the project and commercial growth in the region would be foregone. Change from the "Most Likely Future Condition" will not occur.

8.2.2 Alternative 1

Alternative 1 is expected to have no impact on noise level, aesthetics, existing or potential land use, property values, tax revenue, employment, farmland or food supply, flooding effects, wetlands, biodiversity, biological productivity, surface water quality, groundwater, threatened or endangered species, air quality, hazardous, toxic, and radioactive (HTR) materials, or cultural resources.

8.2.2.1 Short-Term Effects:

a. Direct Effects. Direct, short-term environmental impacts from Alternative 1 are minimal. Extending trails, repairing roads and parking lots, constructing playgrounds, creating lake access, and enlarging picnic shelters will all have a slight negative impact on terrestrial habitat and soils, as soils will be moved, removed, and compacted. Local aquatic habitat will be disturbed and transformed by the construction of docks and piers, and some benthic animals and small vertebrates may be relocated or killed. Adverse environmental impacts will be minor, however, in the scope of the entire project lands. Displaced animals will be able to easily find suitable alternative habitat within the project lands or lake, and projects will be designed to keep soil or sediment

disturbance to a minimum. All proposed development activities are located away from the established bald eagle nesting area, and, therefore, are not anticipated to have any direct effect on this threatened species.

b. Indirect Effects. No indirect, short-term effects are anticipated for Alternative 1.

8.2.2.2 Long-Term Effects:

a. Direct Effects. Direct, long-term environmental impacts from Alternative 1 are minimal. Former terrestrial animal habitat will now be developed human habitat. Adverse environmental impacts will be minor, however, in the scope of the entire project lands. All proposed development activities are located away from the established bald eagle nesting area, and, therefore, are not anticipated to have any direct, long-term effect on this threatened species. The repairs to the West Virginia Access Road will improve local transportation, as will repairs to the boat launch access road.

b. Indirect Effects. Minor positive indirect, long-term social and economic effects are anticipated for Alternative 1. The elements included in the recommended plan will have some recreational value, but will not provide any new activity types at the lake. Public health and safety will be improved somewhat by providing flush toilets, potable water, and showers at the main campground, and by upgrading the vault toilets at the Howell Run Boat Launch.

8.2.3 Secondary Effects: Alternative 1 may have a small, positive secondary effect on the regional economy. Improved recreational experience at Jennings Randolph Lake (JRL) will increase the region's public facilities, and may improve the region's economic growth somewhat by stimulating local business activity. Improvements to the Howell Run boat launch, as described, will require the use of additional energy and resources, in the form of electric lights.

8.2.3 Alternative 2

Alternative 2 is expected to have no impact on existing or potential land use, farmland or food supply, flooding effects, wetlands, biodiversity, groundwater, threatened or endangered species, air quality, or cultural resources.

8.2.3.1 Short-Term Effects:

a. Direct Effects. Direct, short-term environmental impacts from Alternative 2, where they occur, are primarily negative. Enlarging bathhouses and the visitors center; constructing cabins, lodges, picnic shelters, family campgrounds, swimming pools, and new bathing and beach facilities; and creating lake access will all have a moderate to high negative impact on terrestrial habitat and soils, which will be moved, removed, and compacted. Aquatic habitat will be disturbed and transformed by the construction

of docks, marinas, beaches, and piers, and some benthic animals and small vertebrates may be relocated or killed. Adverse environmental impacts will be minor to moderate, however, in the scope of the entire project lands. Displaced animals will be able to easily find suitable alternative habitat within the project lands or lake, and projects will be designed to keep soil or sediment disturbance to a minimum.

b. Indirect Effects. No indirect, short-term effects are anticipated for Alternative 2.

8.2.3.1 Long-Term Effects:

a. Direct Effects. Long-term, direct effects from Alternative 2 include the effects on aesthetics at the lake. Visitor surveys indicate that many, if not most, visitors enjoy the wild, natural views of the lake and surrounding project lands. Adding swimming pools, marinas, and other manufactured elements to the project will diminish the value of this natural aesthetic. This impact can be reduced by careful design and placement of the proposed elements to harmonize with the existing topography and landscape.

b. Indirect Effects. Moderate indirect, long-term effects on noise are anticipated for Alternative 2. These negative effects are expected to include increased noise level at Jennings Randolph, particularly during the summer season. These additional noises include sounds associated with the swimming and wading pools, the golf course, the marina, the water taxi, and the beach swimming areas. While most of these sounds are not unpleasant, the noise level at the lake overall will increase noticeably. This increase may disturb some visitors, but is unlikely to disturb neighboring landowners.

Beneficial long-term, indirect effects include the benefit of somewhat improved local transportation provided by the water taxi, and improved local public health and safety provided by the enlarged bathhouse, flush toilets, and potable water. The public health and safety benefit of the improved infrastructure must be weighed against the additional safety risk posed by the swimming pools and swimming beaches. This risk can be reduced, however, by posting warning signs or hiring lifeguards. The overall impact, therefore, is beneficial.

Stormwater management techniques will be incorporated into project design to accommodate for the increase in impervious surface at the lake. All proposed development activities are located away from the established bald eagle nesting area, and, therefore, are not anticipated to have any effect on this threatened species. Hazardous materials, in the form of fuels and oils at the marina, will increase in overall abundance at the JRL project. Proper storage and fueling will greatly reduce the likelihood of a spill or other contamination. A spill emergency kit will be included as part of the marina complex to further reduce the impacts of an inadvertent spill.

8.2.3.3 Secondary Effects:

Secondary effects of Alternative 2 include the beneficial social effect of additional

recreational facilities for local and seasonal visitors, and the beneficial economic effects of potential small increases in surrounding property values and overall tax revenue; moderate increases in area employment and business activity; and large increases in public facilities and services, and in regional economic growth potential. The economic benefits will be due, primarily, to the increased visitation anticipated due to the new development at the lake. Moderate negative secondary economic effects are anticipated due to increased energy demands at the project, due to electric lights and other electric uses at the golf course, marina, swimming pools, cabins, and lodge/conference center.

8.2.4 Alternative 3

Alternative 3 is expected to have no impact on noise level, aesthetics, transportation, existing or potential land use, property values, tax revenue, employment, farmland or food supply, flooding effects, wetlands, biodiversity, groundwater, threatened or endangered species, air quality, HTR materials, or cultural resources.

8.2.4.1 Short-Term Effects:

a. Direct Effects. Short-term, direct environmental impacts from Alternative 3 are very minimal. Extending trails, constructing group camping areas, creating lake access, and enlarging picnic shelters will all have a slight negative impact on terrestrial habitat and soils, which will be moved, removed, and compacted. Aquatic habitat will be disturbed and transformed by the construction of piers and mooring areas, and some benthic animals and small vertebrates may be relocated or killed. Adverse environmental impacts will be minor, however, in the scope of the entire project lands. Displaced animals will be able to easily find suitable alternative habitat within the project lands or lake, and projects will be designed to keep soil or sediment disturbance to a minimum. All proposed development activities are located away from the established bald eagle nesting area, and, therefore, are not anticipated to have any direct, short-term effect on this threatened species.

b. Indirect Effects. No indirect, short-term impacts are anticipated for Alternative 3.

8.2.4.2 Long-Term Effects:

a. Direct Effects. Negative impacts include former terrestrial animal habitat conversion to developed human habitat. All proposed development activities are located away from the established bald eagle nesting area, and, therefore, are not anticipated to have any long-term, direct effect on this threatened species.

b. Indirect Effects. Long-term, indirect environmental impacts from Alternative 3 are very minimal. Beneficial effects include increased biological productivity, due to the wildlife food plots and feeders at the borrow area, and a slight health and safety benefit can be accorded to the potable water and improved restroom facilities.

8.2.4.3 Secondary Effects:

Anticipated secondary social impacts from Alternative 3 are positive. Recreational opportunities afforded by this action will create a moderate social benefit. Secondary economic impacts from Alternative 3 are also slightly beneficial. These slight benefits include the increase in public facilities, small regional economic growth, and increased area business activity. These benefits will not be so great as those offered by Alternative 2, Alternative 4, or the recommended plan. Again, the small negative effect of Alternative 3 is the additional energy requirements, due to the lights at the Howell Run Boat Launch.

8.2.5 Alternative 4

Alternative 4 is expected to have no impact on existing or potential land use, transportation, public health and safety, farmland or food supply, flooding effects, wetlands, biodiversity, groundwater, threatened or endangered species, air quality, or cultural resources.

8.2.5.1. Short-Term Effects:

a. Direct Effects. Constructing cabins, lodges, camp stores, miniature golf course, playground, and new beach facilities and creating lake access will all have a moderate to high negative impact on terrestrial habitat and soils, which will be moved, removed, and compacted. Aquatic habitat will be disturbed and transformed by the construction of piers. Some benthic animals and small vertebrates may be relocated or killed. Adverse environmental impacts will be minor to moderate, however, in the scope of the entire project lands. Displaced animals will be able to easily find suitable alternative habitat within the project lands or lake, and projects will be designed to keep soil or sediment disturbance to a minimum.

b. Indirect Effects. No indirect, short-term impacts are anticipated for Alternative 4.

8.2.5.2 Long-Term Effects:

a. Direct Effects. Long-term direct effects of Alternative include a moderate effect on aesthetics. As previously mentioned, the natural aesthetic of the existing lake facilities will be changed by the artificial aesthetic of a highly-developed recreational area. Good design will reduce this impact somewhat, by blending the new features with the existing topography and landscape. Direct, long-term environmental impacts are primarily negative. Former terrestrial animal habitat will now be developed human habitat. Adverse environmental impacts will be minor to moderate, however, in the scope of the entire project lands. All proposed development activities are located away from the established bald eagle nesting area, and, therefore, are not anticipated to have any direct, long-term effect on this threatened species.

b. Indirect Effects. A large negative effect to noise levels is anticipated. Playground noise will be combined with noise from the laundry facility, water-ski and jet-ski

slalom course, beach swimming area, and firing range. This noise level will most likely be disturbing to some visitors, and may be disturbing to neighboring landowners. The positive social impact of Alternative 4 is the large recreational opportunity it presents for local and seasonal visitors.

Aquatic habitat will be disturbed and transformed by opening new water areas for water-skiing and jet-skiing. The placement of fish attractors and habitat structures will help reduce the overall impacts to the aquatic community.

Stormwater management techniques will be incorporated into project design to accommodate for the increase in impervious surface at the lake. Hazardous materials, in the form of fuels and oils at the slalom course will increase in overall abundance at the Jennings Randolph Lake project. Proper storage and fueling will greatly reduce the likelihood of a spill or other contamination.

8.2.5.3 Secondary Effects:

Secondary economic effects of Alternative 4 are predominantly beneficial. Beneficial economic effects include potential small increases in surrounding property values and overall tax revenue; moderate increases in area employment and business activity; and large increases in public facilities and services, and in regional economic growth potential. These benefits will be due, primarily, to the increased visitorship anticipated due to the new development at the lake. Moderate negative economic effects are anticipated due to increased energy demands at the project, due to electricity uses at the camp store, lodge, laundry facility, and miniature golf course.

8.2.6 Summary

Table 8-1 presents a summary of the potential long-term regional impacts associated with each alternative considered. In general, no significant impacts are anticipated to any resource as a result of any of the alternative plans.

8.3 Plan Selection

The plan selection process was facilitated by a decision matrix that evaluated each alternative using the following criteria (matrix presented in Appendix A):

Environmental Impact - This variable identifies the degree of impact to the environment from the recreation feature, as detailed earlier in this Section. The greater the impact to the environment, the lower the value of the feature.

Operational Constraints - The recreation feature was rated for the entity (Corps or non-Corps) that would operate and maintain the facility. Operation and maintenance equates to the amount of dollars spent annually to operate the facility. A larger value was given to

Table 8-1: Long-Term Regional Effects of Alternatives

Name of Parameter	No Action	Alternative 1 (Minimal Development)	Alternative 2 (High Development)	Alternative 3 (Moderate Development)	Alternative 4 (Moderate Development)
SOCIAL EFFECTS					
Noise Level	0	0	0	0	0
Aesthetics	0	0	0	0	-1
Recreational Opportunity	-1	+1	+3	+2	+3
Transportation	0	0	0	0	0
Public Health and Safety	0	0	0	0	0
Existing or Potential Land Use	0	0	0	0	0
ECONOMIC EFFECTS					
Property Values	0	0	+1	0	+1
Tax Revenue	0	0	+1	0	+1
Public Facilities and Services	-1	+1	+2	+1	+2
Regional Economic Growth	-2	+1	+2	+1	+2
Employment	-1	0	+1	0	+1
Business Activity	-1	+1	+1	+1	+1
Farmland/Food Supply	0	0	0	0	0
Flooding Effects	0	0	0	0	0
Energy Needs & Resources	0	0	-1	0	-1
ENVIRONMENTAL EFFECTS					
Terrestrial Habitat	0	0	0	0	0
Wetlands	0	0	0	0	0
Aquatic Habitat	0	0	0	0	0
Biodiversity	0	0	0	0	0
Biological Productivity	0	0	0	0	0
Surface Water Quality	0	0	0	0	0
Water Supply	0	0	0	0	0
Groundwater	0	0	0	0	0
Soils	0	0	0	0	0
Threatened/Endangered Species	0	0	0	0	0
Air Quality	0	0	0	0	0
Hazardous, Toxic, Radioactive Material	0	0	0	0	0
CULTURAL RESOURCES EFFECTS					
Historic Architectural Values	0	0	0	0	0
Pre-Historic Archeological Values	0	0	0	0	0

Key:
+3 = Significant Beneficial Effects
+2 = Moderate Beneficial Effects
+1 = Slight Beneficial Effects
0 = No Effects
-1 = Slight Negative Effects
-2 = Moderate Negative Effects
-3 = Significant Negative Effects

those features that did not increase the Corps annual project O&M (i.e. features operated by a concessionaire).

Infrastructure - The values applied to the recreation features was determined by the number of infrastructure types necessary to construct the proposed facility. The greater the need for infrastructure the lower the item was valued.

Public Support - This is a reflection of the public's reaction to the proposed facilities. Public support was assessed during the public meeting and from data gathered from the user surveys. The greater the support for a feature, the higher the value given to the feature.

Economic Benefit - Economic impacts are defined as a direct result of the money spent by visitors. An increase of the money spent at the project can happen two ways 1) attracting new visitors from outside the region who spend money; and 2) increasing the amount of money spent by the visitors. Recreation features with the greatest potential for economic impact will be the elements the attract the most spending. The facilities that have a large economic benefit are highly valued.

Potential for Sponsors - This variable reflects the perceived knowledge or actual knowledge of an agency or other organization (non-federal) that would be capable of successfully constructing and operating a proposed facility. A low rating for this factor was based on the assumption that the Corps' operation budget for the project will not allow the planning, construction, maintenance, and/or operation of new recreation areas.

The matrix analysis concluded that a combination of features selected from each of the four alternatives comprised the preferred plan. The impacts of the recommended plan as a whole are discussed in detail in Section 9, the potential impacts of each feature were identified previously in this Section.

The recommended plan consists of:

Robert W. Craig Campground

Swimming Pool and Bathhouse - This feature would be a medium sized (5-7 lane) pool located near the entrance gate to the campground, including a bathhouse with showers, restrooms, and changing areas.

Camper/Boat Storage - This feature would provide frequent visitors with a locked storage area for campers or boats. The proposed location of this amenity is at the entrance gate where the old maintenance compound is located. This feature was requested during the visitor surveys.

Camp Store - This amenity would reduce travel time to such a service, and permit visitors who camp for extended periods of time to re-stock during their stay, or

purchase emergency items. Currently the minimum travel time to a town for this service is approximately 30 minutes. Additional services such as a laundry facility, an indoor game room, and equipment rentals could be included.

Backloop Restrooms - This enhancement would include destruction of the vault restrooms and construction of a full-service restroom (flush toilets, potable water, and showers). These improvements were requested by lake visitors. Prior to implementation of this feature a cost comparison should be completed to determine the greater feasibility between construction of this new restroom or enlarging the existing full-service restroom.

Borrow Area

Maintain the existing use of the Borrow Area for group camping.

Howell Run Picnic Area

Enhancements - The following general amenities are proposed to enhance the picnic area: a telephone or call box, potable water, and flush toilets. Water for the site could be obtained from the well that supplies water for the administration/maintenance complex and the West Virginia Overlook. An investigation of the capacity and life of the well should be undertaken to determine ability of the well to meet the existing requirements and the projected needs for the picnic area.

Picnic Shelter - Construction of a new picnic shelter verses the enlargement of one of the existing shelters would better serve the visitors, and would generate additional day use fees.

Beach/Swimming Area (alternate location) - This feature consists of a beach and swimming area. The swimming area would extend into the water parallel to the shoreline due to the steep topography and lake fluctuations. Grading of the area would accommodate a 20 to 40 foot annual lake fluctuation during the swimming season. This area is an alternative location to the beach and swimming area at Hogback Ridge.

Howell Run Boat Launch

Upgrade - The recreation area would benefit from the following upgrades: potable water, lighting at the launch ramp and in the parking lot, telephone or call box, and an upgrade of the vault toilets to composting toilets.

Hogback Ridge

Lodge/Convention Center - This alternative consists of a lodge (convention center)

and cabins. The lodge would consist of approximately 100 rooms, a conference center, recreation area, and a restaurant. The adjacent cabins would be scattered in the wooded area surrounding the lodge. The cabins would sleep a maximum of 6 people, and include a small kitchenette, full bathroom, and a living area.

Marina (alternate location) - This alternative consists of a marina with approximately 20 to 30 boat slips for use by lodge, cabin, or campground guests. Amenities at the marina would include a concession building, fuel and oil pumps, electric and water on the docks, restroom, boat launching ramp, and car and trailer parking. This area is an alternative location to the marina at the Maryland Boat Launch.

Beach/Swimming Area (alternate location) - This alternative consists of a beach and swimming area located at the entrance to the Deep Run tributary with a Bathhouse. The swimming area would extend into the water parallel to the shoreline, due to the steep topography and the lake fluctuations. Grading of the area will probably be required to accommodate the 20 to 40 foot annual lake fluctuation during the swimming season. In addition to the beach a swimming platform with a sliding board would be located 25 yards from the shoreline. The marked swimming area would be restricted and delineated from the main boating area. An adjacent area would be designated for boats to anchor, so that boaters could swim in the marked area and use the swimming platform. This area is an alternative location to the beach and swimming area at the Howell Run Picnic Area.

Maryland Boat Launch

Since this area is leased to the Maryland Department of Natural Resources the Corps will not dictate terms for the recreation area other than those contained in the lease. The following recreation features are only suggestions for future development of the site in context with the overall Plan.

Campground or Cabins - A campground located on the hill overlooking the Maryland boat launch is proposed at this area. Campsites would include a camp pad, a grill, a fire ring, and parking area. Cabins on concrete slabs with living quarters, kitchen, restroom facilities, and fireplace are also proposed for the hill overlooking the Maryland boat launch.

Marina (alternate location) - This alternative consists of a 15 to 20 slip marina with fuel and oil service. This area is an alternative location to the marina at Hogback Ridge.

Barnum/Downstream Area

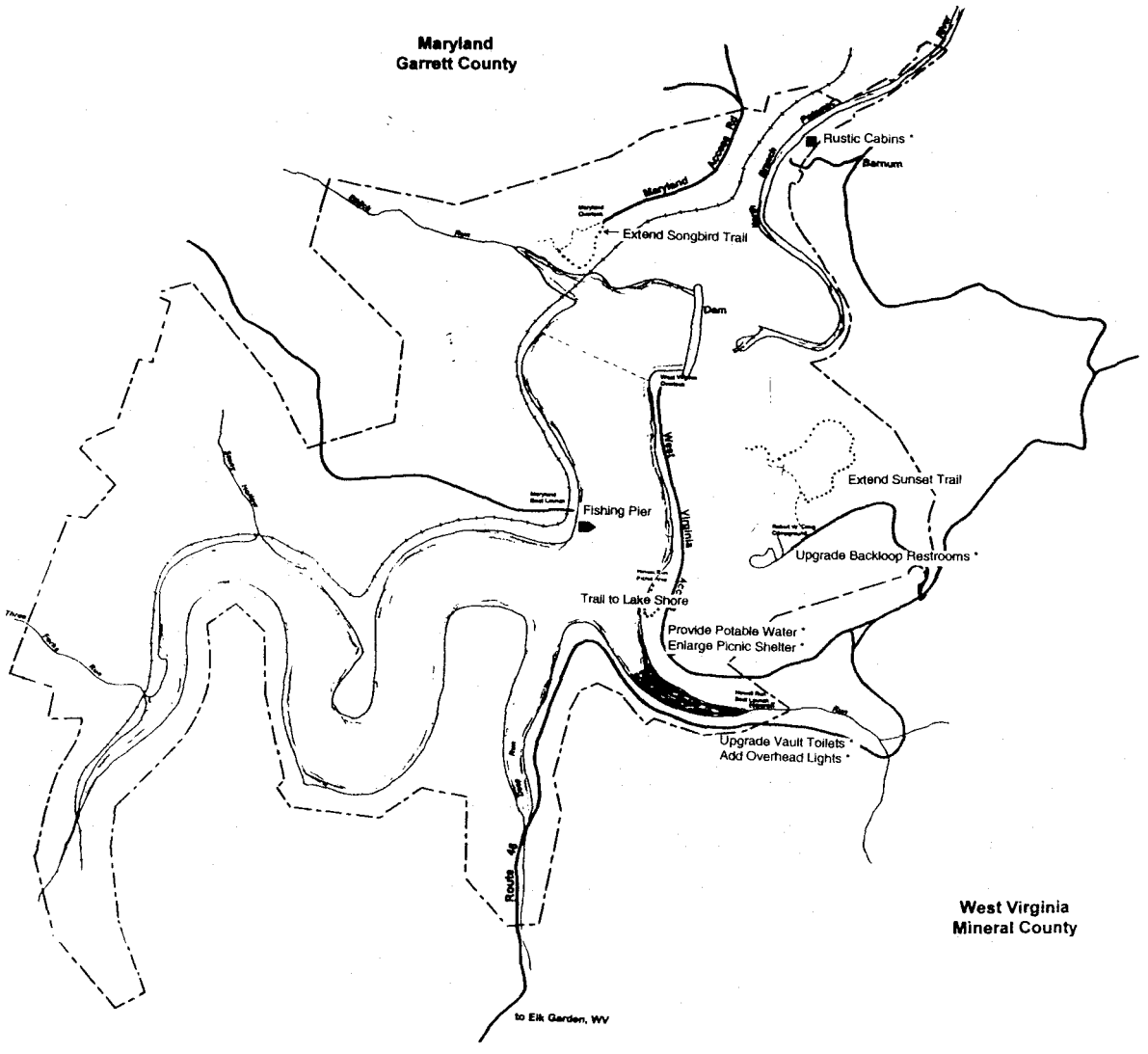
Rustic Cabins - In the area leased to the Mineral County Parks and Recreation

Department (MCPRD) a number of cabins would be field sighted and constructed. MCPRD is currently in the process of constructing one cabin in the leased area and will use it as a trail project to determine the feasibility of building additional cabins in the Barnum area.

Miscellaneous

If there is local interest, the Corps will work with local fishing and hunting groups or the West Virginia and Maryland Department of Natural Resources to construct and/or place tree stands and fish habitat structures.

Alternative Number 1

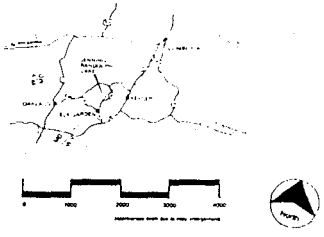


NOTE: * indicates that element was included in Recommended Plan

Legend

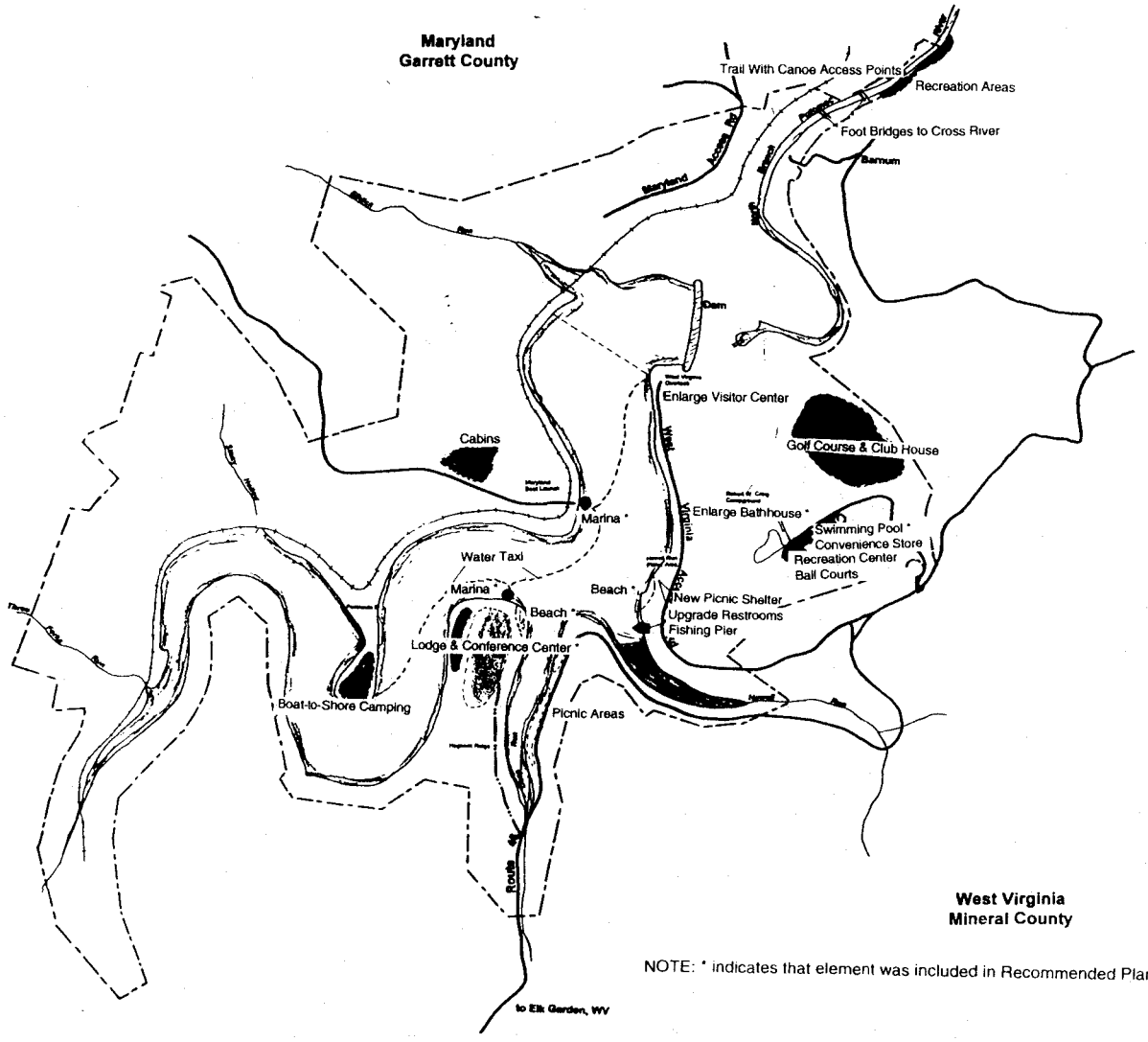
Boundary
Existing Road
Existing Trail
Proposed Trail
Fishing Pier
Rustic Cabin
No Wake Zone
Upgrade Existing Facilities

Key Map



Jennings Randolph Lake
Master Plan
1997 update

Corps of Engineers
Baltimore District



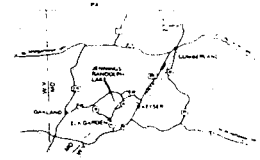
NOTE: * indicates that element was included in Recommended Plan

Alternative Number 2

Legend

Boundary
Existing Road
Proposed Road
Existing Trail
Proposed Trail
Water Taxi
Marina
Fishing Pier
Cabins
Swimming Pool
No Wake Zone
Upgrade Existing Facilities
Developed Areas
Golf Course
Recreation Area
Campground
Beach/Swim Area
Picnic Area
Boat-to-Shore Camping

Key Map



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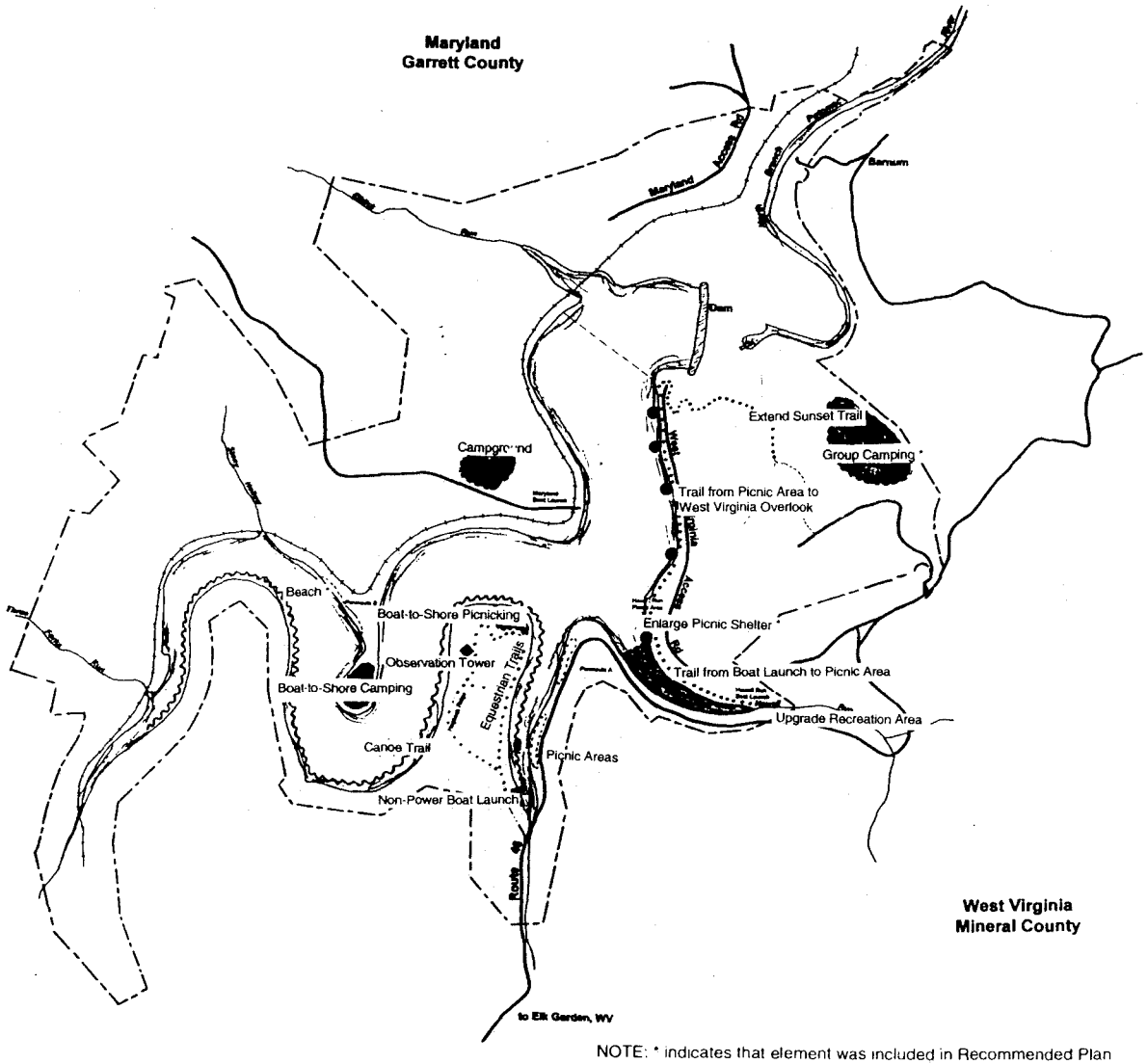
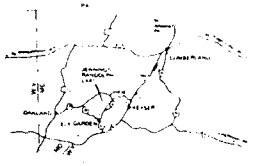
Alternative Number 3



NOTE: * indicates that element was included in Recommended Plan

Key Map



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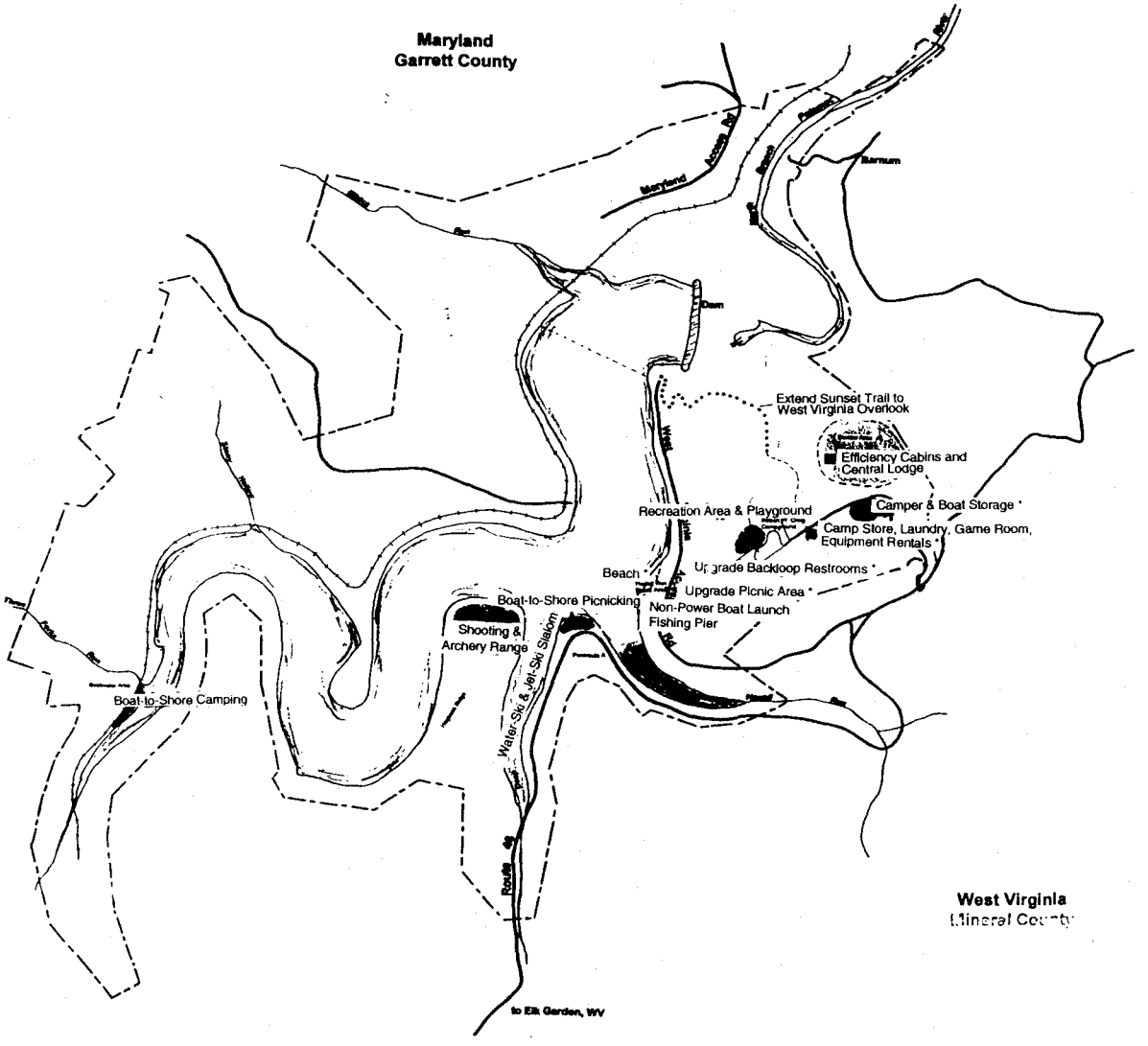
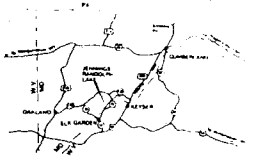
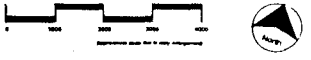


Legend

- Boundary
- Existing Road
- Existing Trail
- Proposed Trail
- Non-Power Boat Launch
- Fishing Pier
- Camp Store
- Cabins
- No Wake Zone
- Upgrade Existing Facilities
- Developed Area
- Camper/Boat Storage
- Recreation Area/Playground
- Boat-to-Shore Picnic Area
- Boat-to-Shore Camping
- Beach/Beach Area
- Shooting/Archery Range
- Water Ski/Jet Ski Area

Key Map





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SECTION 9

RECOMMENDED PLAN

9.1 Plan Features

The recommended plan is comprised of 9 recreation sites. These features include new recreation areas, new facilities, improved existing facilities, increased area-wide programs and projects, and improved infrastructure. Table 9-1 presents the features of the recommended plan. The facilities could be funded through a variety of sources such as O&M funds, cost-sharing partnerships, congressional appropriations, private funding (concessions), and/or other Federal and state agency funding. However, this document does not provide the authority to fund new facilities, or design and construct new facilities or enhancements to existing facilities.

Implementation of the Plan is expected to occur in phases over a period of approximately 10-15 years. The development sequence for the facilities will be determined by a number of factors which includes the availability of funding; public interest or demand; and the availability, improvement, or construction of supporting infrastructure.

Table 9-1: Recommended Plan Project Features

Robert W. Craig Campground Enlarge Existing Bathhouse Equipment Rentals Swimming Pool/Bathhouse Camper/Boat Storage Camp Store and amenities	Back Loop RWC Campground Convert Vault to Flush/Potable Water/Showers Borrow Area adjacent to Campground Maintain Group Camping Area
Howell Run Picnic Area Upgrade to area - potable water, flush toilets, electricity, call box/telephone New Picnic Shelter Beach/Swimming Area (alternative location)	Howell Run Boat Launch Upgrade to area - potable water, flush toilets, electricity, call box/telephone Overhead Lighting
Hogback Ridge Beach/Swimming Area (alternative location) Lodge/Conference Center Cabins Medium-sized Marina (alternative location) - boat rentals amenity	Maryland Boat Launch (suggestions) Medium-sized Marina (alternative location) Cabins and/or Campground
Barnum Area Rustic Cabins	Miscellaneous Work with local fishing and hunting groups or the WV and MD DNR to construct and place tree stands and fish habitat structures

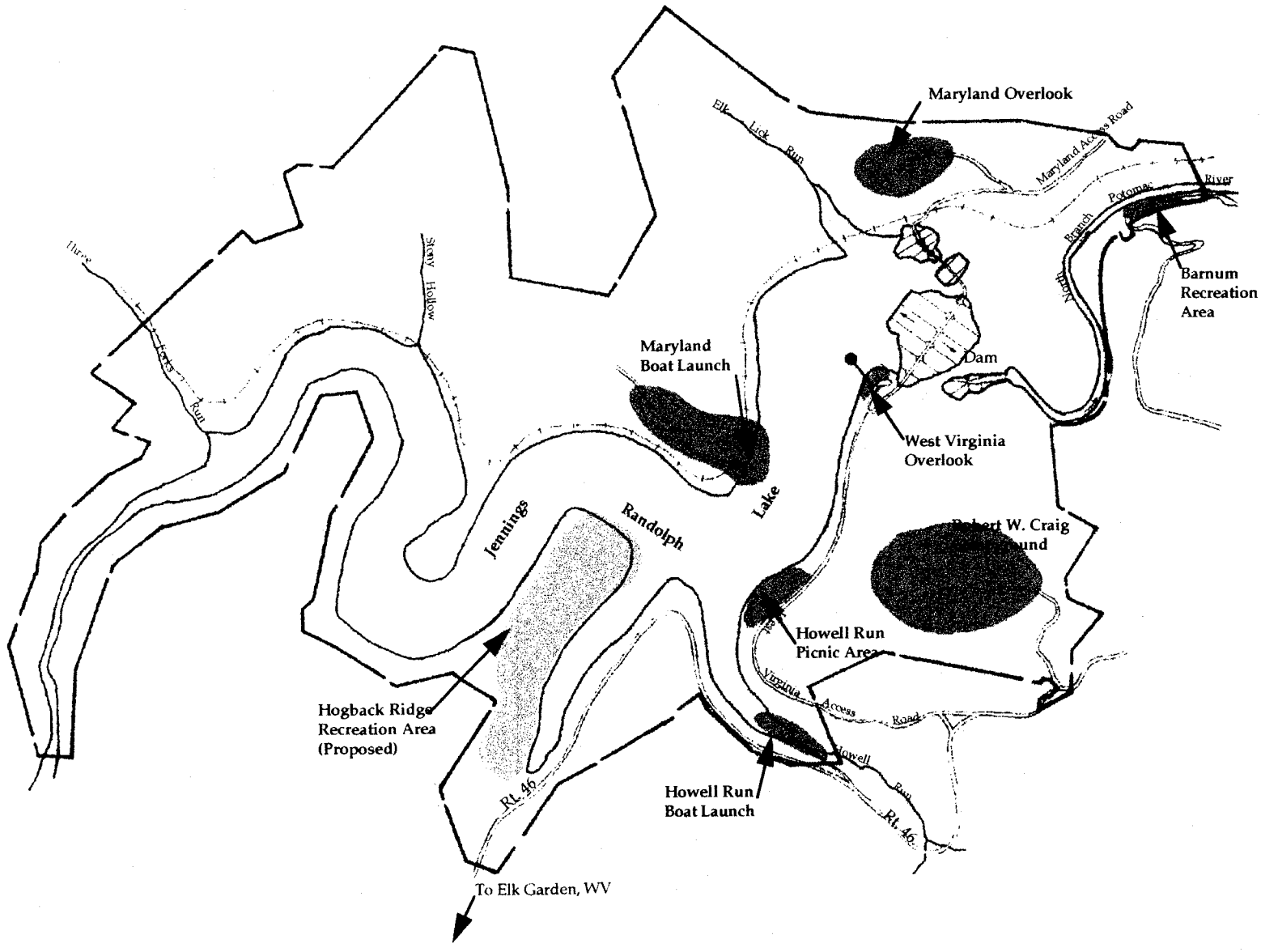

Figure 9-1
Draft Recommended Plan

Legend

- Existing Recreation Areas
- Proposed Recreation Area

Not to Scale N

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9.2 Analysis of Recommended Plan Impacts

The proposed action includes the construction of and maintenance and operation of the proposed facilities presented in the recommended plan. Each individual construction activity is part of the proposed action. Subsections 9.2.1 through 9.2.19 address the impacts of the proposed recommended plan.

9.2.1 Topography

Development of the facilities outlined in the recommended plan, with the exception of facilities planned for Hogback Ridge, will not have significant negative impacts on the topography of the project lands, since they are located in existing recreation areas which have been previously disturbed.

9.2.1.1 Short-Term Effects:

a. Direct Effects. Short-term, direct effects on topography include the clearing and grading required for site preparation for construction. These effects will be local in nature, and will be minimized by the construction design.

b. Indirect Effects. No short-term, indirect effects are anticipated for the recommended plan.

9.2.1.2 Long-Term Effects:

a. Direct Effects. Construction of the proposed Hogback Ridge facilities will have isolated, long-term, direct impacts on the topography of the Hogback Ridge peninsula. The site consists of mainly steep to moderate slopes, with a few gentle slopes on the ridge and north side of the peninsula. A schematic site plan was developed for this site, as shown in Figure 9-1. Conceptually, the site will be developed using an existing access road (Hogback Road) from Elk Garden, West Virginia, which cuts across the site west of the ridge. The road will need additional grading to widen the roadway and shoulder. The cabins, lodge, and parking area will be located on the north side of the peninsula where the land is moderately sloped. The beach and marina will be located in the area of the Deep Run tributary, east side of the peninsula, where the slopes range from moderate to steep slopes. Care will be taken when siting all facilities on this peninsula to reduce cost, erosion, and other potential impacts.

b. Indirect Effects. No long-term, indirect effects are anticipated for the recommended plan.

9.2.1.3 Secondary Effects:

No secondary effects to topography are anticipated for the recommended plan.

9.2.2 Geology and Soils

The impacts to the geology and soils from the proposed action will not be significant. Soil characteristics of the proposed development sites were reviewed for this study, but since the facilities and placement of the facilities is only conceptual, in-depth studies were not completed to determine the soil characteristics of individual sites.

9.2.2.1 Short-Term Effects.

a. Direct Effects. Geology and soils on Jennings Randolph Lake project lands may have a large impact on the types and sizes of facilities which can be built. As stated in Section 4, the soils at the project are typically very stony, and are considered to be moderately to severely limited for recreational site development. The soil characteristics of all undeveloped sites must be verified prior to design of the facilities to determine the suitability of the area for various types of recreation. The areas will then be designed accordingly. In addition to the use of Best Management Practices (BMPs), vegetative barriers, and field siting, the proposed action will follow all Federal, state, and local regulations regarding sedimentation and erosion control practices to reduce impacts on and off project lands.

b. Indirect Effects. No short-term, indirect effects on soil type or geology are anticipated for the recommended plan.

9.2.2.2 Long-Term Effects

a. Direct Effects. No direct, long-term effects on soil type or geology are anticipated for the recommended plan.

b. Indirect Effects. Because of the steep slopes and soil types at Hogback Ridge, construction activities at the site are likely to require additional temporary and permanent erosion and sedimentation control measures. The erosion and sedimentation control facilities and maintenance will be determined by standard engineering practice on a site by site basis.

9.2.2.3 Secondary Effects

No secondary effects on soils or geology are anticipated due to the recommended plan.

9.2.3 Climate

9.2.3.1 Short-Term Effects

a. Direct Effects. Initial, minor, short-term, and direct impacts to micro-climates could occur as a result of facility construction activities. These impacts will take the form of raising the temperature in the area of construction.

b. Indirect Effects. No short-term, indirect effects are anticipated on climate due to the recommended plan.

9.2.3.2 Long-Term Effects

a. Direct Effects. No long-term, direct effects are anticipated on climate due to the recommended plan. Any long-term effects related to the raised temperature in relation to the increase of non-vegetated surfaces, such as paved roads, will not be significant.

b. Indirect Effects. No long-term, indirect effects are anticipated on climate due to the recommended plan.

9.2.3.3 Secondary Effects

Significant impacts to the climate of the area will not occur with the construction, operation, and maintenance of any of the proposed facilities.

9.2.4 Terrestrial Resources

9.2.4.1 Short-Term Effects

a. Direct Effects. Impacts to wildlife from the overall recommended plan will not be significant. Construction activities at existing sites will result in direct, short-term impacts to wildlife because of noise and traffic levels.

b. Indirect Effects. No short-term, indirect effects on terrestrial resources are anticipated as a result of the recommended plan.

9.2.4.2 Long-Term Effects

a. Direct Effects. The proposed action will decrease the project's forest resources by approximately 5 percent, or 140 acres. Currently, 80 percent of the project, or 2,800 acres, is covered by deciduous forests. The forest management objective at the project is to increase the value of project lands for wildlife and recreation by promoting natural ecological conditions through conservation practices. The strategy allows a flexible framework in the management of timber and forest resources as changing needs warrant. Based on the project authorization, which includes recreation, and the management philosophy of forest and wildlife resources five percent is not a significant amount of forest cover to be lost.

Long-term, direct impacts on wildlife and terrestrial resources will be minimal, since the majority of the planned facilities are located in existing recreation areas. Habitat fragmentation, due to disruption of the continuous habitat activity through the clearing of moderately large open spaces for facilities and linear open spaces for roads and infrastructure, will only occur in the Hogback Ridge area. As a result of clearing, edge

habitat will increase by 140 acres, and may favor deer and small mammals over interior forest-dwelling wildlife species. However, the remaining 2,660 acres of prime forest land should provide ample habitat for the forest-dwelling species on the project lands. The existing remote shoreline habitat and wildlife access to the lake will also be impacted by the development.

Loss of wildlife habitat on Hogback Ridge (approximately 70 acres) will not be significant, due to the small amount of land proposed for development in comparison to the large amount of undeveloped habitat available on project lands (approximately 2,780 acres) plus the rural area immediately adjacent to the project. Siting practices, such as clustering associated facilities and minimizing cleared areas around structures and roads, will reduce long-term direct impacts to wildlife habitat. Design criteria will be also established to maintain a natural condition at the lake.

a. Indirect Effects. No long-term, indirect effects on terrestrial resources are anticipated due to the recommended plan.

9.2.4.3 Secondary Effects:

No secondary effects on terrestrial resources are anticipated due to the recommended plan.

9.2.5 Water Quality

In the years since the 1973 Master Plan, the water quality of the lake has improved to such a level as to support a recreational fishery and water contact recreation. The potential impacts of the proposed action on surface water, groundwater, and stormwater quality and quantity will not be significant. The final designs for each proposed facility will minimize direct and indirect impacts to the lake.

9.2.5.1 Short-Term Effects

a. Direct Effects. Short-term impacts on the water quality from the construction of the beach/swimming area, marina, and piers will include increased turbidity and suspended particulates. The impacts from construction will subside after a short period of time. The placement of fish attractors will include short-term, minor impacts such as turbidity which will also subside after a short period of time. Prior to construction activities in the lake, a Clean Water Act Section 404(b)(1) analysis will be conducted, and a Section 401 water quality certification will be obtained.

a. Construction of the proposed action will follow all Federal, state, and local regulations regarding sedimentation and erosion control practices, and close coordination with the regional state conservation officer will be maintained. Facility impacts will be reduced by siting facilities to minimize impacts to surface water, maintaining existing vegetation, and using BMPs.

b. Indirect Effects. No indirect, short-term effects on water quality are anticipated from the recommended plan.

9.2.5.2 Long-Term Effects

a. Direct Effects. Facilities such as the beach/swimming area and the marina will have minor direct impacts on the lake. Continuous (long-term) impacts from these developments may include increased turbidity caused by activities at the beach and increased boating activity.

b. Indirect Effects. The only long-term indirect effect on water quality associated with the recommended plan is the additional risk of petroleum contamination from increased boating activities. The fuel pump associated with the proposed marina could potentially, add large quantities of fuel into the lake at one time in the event of a spill or leak. To avoid accidental spills, the pump will be constructed, used, and maintained according to state regulations and codes. A spill response plan will also be designed, and lake operators will be trained in spill response practices.

Generally, a slight decrease in surface water infiltration is expected in areas where the proposed development will result in an increased amount of impervious surface area. These areas include paved roads, parking lots, and paved camp pads; and built structures such as the cabins, camp store, picnic shelter, swimming pool, and bathhouses. Surface water infiltration may decrease due to the increased impervious surfaces, such as roads, parking lots, and roofs. Although this impact will be direct and long-term, it will have so small an effect as to be immeasurable. Overall, the recommended plan adds a relatively small amount of impervious surface to the project area and impacts to the groundwater are not likely to be significant, or even measurable.

The potential impacts from the recommended plan will be minimized through careful design and compliance with erosion, sediment, and stormwater control measures, and are not considered to be significant. Construction of hard surface area, as mentioned in the paragraph on groundwater, will result in a small increase in the impervious area at the project. The effect of the resulting stormwater runoff will be minimized through design and management techniques for controlling runoff. These techniques may include detention ponds, grassed drainage swales, vegetated buffers, field siting of facilities to maintain vegetation, the use of BMPs, and the use of permeable paving. Stormwater management systems will be designed as part of all development plans where significant stormwater runoff is anticipated.

9.2.5.3 Secondary Effects

No secondary effects on water quality are anticipated due to the recommended plan.

9.2.6 Aquatic Resources

The overall impacts to aquatic resources will not be significant.

9.2.6.1 Short-Term Effects

a. Direct Effects. Construction of the proposed fishing piers, marinas, beach/swimming areas, and boat docks will result in short- and long-term, direct, localized impacts to the shoreline aquatic resources. Temporary disturbance of aquatic resources will be caused by increased suspended particulates and turbidity. The area of benthic production will be reduced in the in-lake construction area; however, the area of disturbance for this type of construction activity will be minor. Design and development of the sites will include the maintenance of existing or installation of new vegetation, field siting of facilities, and sediment and erosion control techniques to protect aquatic resources.

b. Indirect Effects. There are no short-term, indirect effects anticipated for water quality due to the recommended plan.

9.2.6.2 Long-Term Effects

a. Direct Effects. Construction of the proposed fishing piers, marinas, beach/swimming areas, and boat docks will result in short- and long-term, direct, localized impacts to the shoreline aquatic resources. Temporary disturbance of aquatic resources will be caused by increased suspended particulates and turbidity. The area of benthic production will be reduced in the in-lake construction area; however, the area of disturbance for this type of construction activity will be minor. Design and development of the sites will include the maintenance of existing or installation of new vegetation, field siting of facilities, and sediment and erosion control techniques to protect aquatic resources.

b. Indirect Effects. There are no long-term, indirect effects anticipated for water quality due to the recommended plan.

9.2.6.3 Secondary Effects

Since there are no state or Federally designated Wild and Scenic Rivers within or impacted by the construction, operation, and maintenance of the proposed action, there will not be an impact on these rivers.

9.2.7 Wetlands

All of the proposed facilities in the recommended plan are located upstream of the dam, with the exception of the existing Barnum Whitewater area. The only wetlands identified at the JRL Project are located downstream of the dam in the seepage ponds and in the swale of the

emergency spillway, and this area is not proposed for development in the recommended plan. Therefore, no direct or indirect, short-term or long-term impacts to identified wetlands will occur with implementation of the proposed action.

9.2.8 Threatened and Endangered Species

As stated in a letter from the U.S. Fish and Wildlife Service, dated 17 September 1996, the only threatened or endangered species found with project limits is the bald eagle. Historically, the nests have been located in an area that will not be directly disturbed with construction of the proposed action.

9.2.8.1 Short-Term Effects

a. Direct Effects. No direct, short-term effects are anticipated to threatened and endangered species due to the recommended plan.

b. Indirect Effects. Construction of the facilities at Hogback Ridge could have an indirect impact on the nesting eagles due to the noise associated with construction. To minimize any impact to the bald eagles, construction of the facilities at Hogback Ridge will be restricted to non-nesting months. Additionally, the marina will be sited to reduce the impacts of operational noise on the eagles.

   Construction of the other facilities in the recommended plan will not indirectly impact the eagles. The operation and maintenance of the recommended plan's facilities will not impact the eagles. The eagles have been sighted "fishing" at the trout pens located in the stilling basin, but have not been observed fishing from the lake. A buffer zone surrounding the nesting area is identified on the critical area map, Section 3. This zone includes an area of the lake which is restricted from public use by buoys and a buoy line to protect this threatened species.

9.2.8.2 Long-Term Effects

a. Direct Effects. No indirect, short-term effects are anticipated to threatened and endangered species due to the recommended plan.

b. Indirect Effects. No indirect, long-term effects are anticipated to threatened and endangered species due to the recommended plan.

9.2.8.3 Secondary Effects

No secondary effects on threatened and endangered species are anticipated due to the recommended plan.

9.2.9 Prime and Unique Farmlands

As stated in sub-Section 3.10, there are no prime and unique farmland soils within the project area. Therefore, the proposed action will not have any short-term or long-term, direct or indirect impact on any prime and unique farmlands.

9.2.10 Air Quality

9.2.10.1 Short-Term Effects

a. Direct Effects. Initial minor, short-term, localized, direct impacts to air quality will occur as a result of site preparation, facility construction, or upgrade activities associated with the proposed action. These impacts will occur in the form of dust and exhaust emissions from construction vehicles, trucks, and other heavy equipment.

b. Indirect Effects. No short-term, indirect impacts to air quality are expected to occur due to the proposed action

9.2.10.2 Long-Term Effects

a. Direct Effects. No long-term, direct impacts to air quality are expected to occur due to the proposed action.

b. Indirect Effects. The increase in recreational/visitor traffic as a result of the development at Hogback Ridge will have an indirect, minor, long-term impact. Potential significant impacts will be reduced through sensitive site design, and traffic control during peak use. Impacts will be localized, and of a limited magnitude and duration due to the type of development. The type of impacts from construction will be the same as listed in the previous paragraph, only to a greater extent.

9.2.10.3 Secondary Effects

No secondary impacts to air quality are expected to occur due to the proposed action.

9.2.11 Hazardous, Toxic, and Radioactive Substances

Based on the studies cited in Section 3 and coordination with state and Federal agencies, no HTR substance is believed to be present at the JRL project, or in the vicinity of the proposed development sites. There are no existing facilities at the JRL project that are classified as a "hazardous waste generator," nor are any such facilities included in the recommended plan.

9.2.11.1 Short-Term Effects

a. Direct Effects. Appropriate precautions will be taken during construction and operation of the proposed facilities to minimize exposure or release of any hazardous

substances during transport or storage. No significant long- or short-term impacts from HTR substance are expected to occur due to the proposed action.

b. Indirect Effects. No significant short-term, indirect impacts from HTR substances are anticipated due to the recommended plan.

9.2.11.2 Long-Term Effects

a. Direct Effects. No significant long-term impacts from HTR substances are expected to occur due to the proposed action.

b. Indirect Effects. Potential impacts from release of hazardous materials will be minimized by preparation of an action plan for all hazardous material associated with construction or ongoing operations. All Engineer Regulations, Policies, Department of Defense (DOD) Directives and Instructions, and Environmental Review Guide for Operations/DOD Compliance Requirements will be applied and followed in the management of hazardous materials. An action plan is currently required of all businesses and concessionaires, including the Corps, that store or use hazardous materials on project lands.

9.2.11.3 Secondary Effects

No secondary effects on Hazardous, Toxic, and Radioactive Substances are anticipated due to the recommended plan.

9.2.12 Environmental Justice

In accordance with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations," an analysis of environmental impacts on minority and low-income communities, including human health, social, and economic effects, has been conducted for the proposed action. The recommended plan identifies facilities to be developed solely on Corps land. The design and placement of facilities within Corps lands will not impact the surrounding viewshed. Therefore, implementation of the recommended plan will not create any disproportionately high or adverse human health or environmental impacts on minority or low-income populations of the surrounding community. The recommended plan will not have a significant short-term or long-term direct or indirect effect on minority or low-income communities or individuals.

9.2.13 Recreation

Impacts to the existing recreational resources at JRL due to the proposed action will not be significant, and will increase recreational use of the project.

9.2.13.1 Short-Term Effects

a. Direct Effects. Impacts to the recreational resources at JRL will be direct and short-

term, and will result from noise and physical disturbances during construction.

b. Indirect Effects. No short-term indirect effects on recreation are anticipated due to the recommended plan.

9.2.13.2 Long-Term Effects

a. Direct Effects. Use of the terrestrial resources for recreational activities such as hunting will be decreased by approximately 100 acres due to the development of Hogback Ridge. Other facilities are located in existing recreation areas where hunting is currently prohibited. The recommended plan will not significantly impact recreational hunting.

b. Indirect Effects. No long-term, indirect effects are anticipated due to the recommended plan.

9.2.13.3 Secondary Effects

Secondary Effects of the recommended plan include improvement to the resources as well as regional economic benefits. The increased variety provided by the proposed facilities will provide moderate long-term beneficial impacts for recreation and the economy in the immediate vicinity and the region.

9.2.14 Aesthetics

Impacts to the aesthetics of the project will not be significant. To avoid losses in visual quality at the project it is essential that all proposed facilities be constructed according to design criteria developed specifically to maintain a natural aesthetic at the lake.

9.2.14.1 Short-Term Effects

a. Direct Effects. No short-term, direct effects on aesthetics are anticipated due to the recommended plan.

b. Indirect Effects. No short-term, indirect effects on aesthetics are anticipated due to the recommended plan.

9.2.14.2 Long-Term Effects

a. Direct Effects. Development of Hogback Ridge will have long-term direct effect on the aesthetics of the project and the viewshed from the lake. The construction of the conference center, cabins, and associated recreational facilities will require grading and clearing of vegetation, which will result in an impact on the views from the lake. Visual impacts will be mitigated by preserving the existing vegetation to the greatest extent possible, designing buildings to blend into the surrounding landscape, and

landscaping with native vegetation that is consistent with the natural character of the site.

b. Indirect Effects. No long-term indirect effects are anticipated due to the recommended plan.

9.2.14.3 Secondary Effects

No secondary effects on aesthetics are anticipated due to the recommended plan.

9.2.15 Effects On Existing Reservoir Operation

The recommended plan will not impact current or future reservoir operation. The recommended plan does not change the project authorization or the primary responsibilities of the project.

9.2.15.1 Short-Term Effects

a. Direct Effects. No direct effects on reservoir operations are anticipated due to the recommended plan.

b. Indirect Effects. No short-term, indirect effects on reservoir operations are anticipated due to the recommended plan.

9.2.15.2 Long-Term Effects

a. Direct Effects. No direct effects on reservoir operations are anticipated due to the recommended plan.

b. Indirect Effects. To achieve the desired improvements in the water quality downstream of the dam, occasional sacrifices are associated with lake-related recreation activities. The outflows that are necessary to maintain water quality downstream result in reduced lake levels. Presently, this may require closing the existing Howell Run or Maryland boat launches before the end of the recreation season. All proposed in-lake recreation facilities will be designed to accommodate possible lake fluctuations during the recreation season (May - September).

During high water events, the lake is used to hold water in the reservoir and to slowly release it to reduce downstream flooding. During these events, the lakeside recreation areas may be inundated for short periods of time. Proposed lakeside facilities will be designed to withstand flooding during these periods.

9.2.15.3 Secondary Effects

No secondary effects on reservoir operation are anticipated due to the recommended plan.

9.2.16 Cultural Resources

Based on the findings of the Phase I investigations described in Section 3, the construction, operation, and maintenance of the proposed facilities will not have any long-term or short-term direct or indirect impact on any significant historical artifacts or sites, or historic architectural resources within the project boundaries. Letters of concurrence from the Maryland and West Virginia State Historic Preservation Offices, dated 6 January 1992 and 25 November 1991, respectively, are included in Appendix B.

9.2.17 Social And Economic Setting

9.2.17.1 Short-Term Effects

a. Direct Effects. No direct effects on economics or social structure are anticipated due to the recommended plan.

b. Indirect Effects. No indirect effects on economics or social structure are anticipated due to the recommended plan.

9.2.17.2 Long-Term Effects

a. Direct Effects. No direct effects on economics or social structure are anticipated due to the recommended plan.

b. Indirect Effects. No indirect effects on economics or social structure are anticipated due to the recommended plan.

9.2.17.3 Secondary Effects

Many of the proposed facilities are upgrades to existing recreation facilities which will contribute to the health and welfare of the public through their participation in outdoor recreation activities. Additionally, the proposed new recreation area at Hogback Ridge will create potential jobs. Although, the base of employment will not be a large number, the direct and indirect economic impacts of dollars spent within a 30-mile radius of the project (Section 4) are expected to benefit population in the area surrounding the lake and area that visitors must pass through to get to the lake.

a. Population and Employment. Impacts of the proposed action on regional population and employment are not expected to be significant. No relocation of citizens will be required to implement the proposed action. The development of Hogback Ridge is expected to increase the need for year-round employees, due to the service-oriented facilities and associated activities. The long-term impacts from the recommended plan will be beneficial, due to the increase in the number of jobs in the area.

b. Transportation. Impacts to transportation due to the proposed action are not

expected to be significant. Construction of the proposed action will involve minor, direct, short-term impacts to local transportation as a result of construction activities in existing recreation areas. Development at Hogback Ridge will involve long-term positive impacts, due to the construction and operation of a new recreation area and the improvements to Ridge Road from Elk Garden, WV.

c. Land Use. According to the Comprehensive Plan (1996) for Mineral County, West Virginia, the land adjacent to the JRL project is undeveloped farmland or woodland, whose designated future land use is "rural." The Comprehensive Plan defines "rural" as an intentionally broad category that is intended to recognize the range of land uses found in the outlying areas of Mineral County. The main intent of this category is to "seek lot sizes that relate to the available infrastructure, and seek to control the most intense and potentially noxious uses, such as landfills, junkyards, and heavy industrial uses."

   Garrett County, Maryland, through its Comprehensive Plan, has designated the land surrounding the JRL project as a "Rural Resource Area." The Rural Resource Area is defined as a conservation area where development will be limited, and the rural character of the area will be preserved. The Comprehensive Plan states that the land bordering the project is "very scenic and remains for the most part in the pristine natural state, and identifies land use policies on how to limit development to help protect the areas."

   Development of a site such as Hogback Ridge could stimulate increased service development in both West Virginia and Maryland. Any development will be in accordance with both the West Virginia Comprehensive Plan (1996) and the Maryland Comprehensive Plan (1995).

d. Noise. No significant noise impacts are expected, due to the proposed action. Construction activities will cause direct, short-term impacts. After completion of the construction activities, it is expected that noise levels will return to the existing levels on a project-wide basis. Operation of the lodge, cabins, and marina will increase the noise levels locally, but will not be significant. These noise impacts will occur primarily during the daylight hours during the recreation season.

9.2.18 Cumulative Effects

40 CFR 1508.7 defines cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

Generally, the long-term cumulative economic impacts of the proposed action will be positive and result in economic growth in the JRL region. Site-specific impacts to the land use, soils,

topography, vegetation, wildlife, fishery, and recreational and cultural resources will not be significant, assuming the sensitive design of the proposed facilities and adherence to Federal, state and local ordinances. Additionally, the topography and soils on and around the project lands severely limit any significant development.

There are no known planned or progressing construction or development projects at any other lake, reservoir, or recreational facility in the project area. Therefore, the development at Jennings Randolph Lake will have no anticipated cumulative environmental effect with respect to recreational development at these other sites.

The recommended plan proposes limited facility enhancements or expansion at the existing recreation areas, and eliminates some development, and some of the sites proposed in the 1973 Master Plan. The site at Hogback Ridge will require infrastructure development. The existing road into the area will be upgraded and extended; electric and telephone service will be extended from existing lines in Elk Garden, West Virginia; and water and sewer service will be developed at the site. Impacts will be minimized on this site through sensitive design and field siting, adherence to BMPs, and compliance with appropriate laws and regulations.

9.3 Compliance with Environmental Protection Statutes

A review of compliance with applicable Federal statutes, executive orders, and executive memoranda has been conducted for the proposed action. The results of this review are shown in Table 9-2. Implementation of the recommended plan will comply with all applicable Federal, state, and local statutes. Development of any of the facilities may require additional review and action for continued compliance with NEPA, the Clean Water Act, and the National Historic Preservation Act. State and local statutes and permits, including wetlands and soil and erosion control, also will require review and submittal during development of the recommended plan. All appropriate permits will be obtained before construction activity begins.

Table 9-2
Regulatory Compliance Requirements

Federal Statutes	Level of Compliance
Anadromous Fish Conservation Act	FULL
Archeological and Historic Preservation Act	FULL
Clean Air Act	FULL
Clean Water Act	FULL (1)
Coastal Barrier Resources Act	N/A
Coastal Zone Management Act	N/A
Comprehensive Environmental Response, Compensation and Liability Act	FULL
Endangered Species Act	FULL
Estuary Protection Act	N/A
Federal Water Project Recreation Act	FULL
Fish and Wildlife Coordination Act	FULL
Land and Water Conservation Fund Act	FULL
Marine Mammal Protection Act	N/A
National Historic Preservation Act	FULL
National Environmental Policy Act	FULL
Resource Conservation and Recovery Act	FULL
Rivers and Harbors Act	FULL
Watershed Protection and Flood Prevention Act	FULL
Wild and Scenic Rivers Act	FULL
Executive Orders, Memoranda, etc.	
Protection and Enhancement of Cultural Environment (E.O. 11593)	FULL
Floodplain Management (E.O. 11988)	FULL
Protection of Wetlands (E.O. 11990)	FULL
Prime and Unique Farmlands (CEQ Memorandum, 11 Aug 80)	FULL
Environmental Justice in Minority and Low-Income Populations (E.O. 12898)	FULL

Note:

Full Compliance (Full): Having met all requirements of the statute, E.O. or other environmental requirements for the current stage of planning.

Partial Compliance (Partial): Not having met some of the requirements that normally are met in the current stage of planning.

Non-Compliance (NC): Violation of a requirement of the statute, E.O. or other environmental requirement.

Not Applicable (N/A): No requirements for the statute, E.O. or other environmental requirement for the current stage of planning.

(1) Programmatically, the operations at Jennings Randolph Lake are in compliance with the Clean Water Act. Each construction activity, however, will need a detailed, site-specific evaluation.

SECTION 10

PUBLIC INVOLVEMENT PROGRAM

10.1 Purpose Of Program

Interested and affected individuals, groups, and agencies ("the public") were provided opportunities to participate in decision-making throughout the update process. The objectives of public involvement are to provide project information to the public; to identify the public's desires, needs, and concerns; and to take into account the public's view on decisions made. Communication tools such as newsletters, surveys, a public open house, and attendance at other agency's meetings were used to reach these objectives with a reasonable expenditure of time and funds. Copies of published and recorded information are located in Appendix B.

The study was formally initiated in Fall 1995. Approximately 180 newsletters were sent to congressional interests, the appropriate resource agencies, state and local government bodies, and interested parties to announce the initiation of the study and to solicit comments. The comments received as part of the public involvement program helped make the master plan update successful. Summarized comments that were received are listed below:

- Citizens request that the improvements are made to the boat launch ramp and that lake needs to be developed in a way to improve the economy.
- Both Maryland and West Virginia State Historic Preservation Offices concur that the project area does not contain any historical, architectural or archeological sites listed on or eligible for inclusion in the National Register of Historic Places.
- The U.S. Fish and Wildlife Service strongly recommend that nesting of bald eagles be encouraged at the lake and current nesting sites be protected by using an adequate buffer zone.

10.2 Structure Of Program

The purpose of the program was achieved through a variety of approaches including the following:

- Recreation Survey: During the week of the 1996 Fourth of July holiday, the study team conducted visitor surveys to gather visitor opinions and suggestions about Jennings Randolph Lake.

- Newsletter: A newsletter was prepared during the study process to discuss a variety of issues and answer potential questions. The newsletter was distributed in Fall 1997, announcing the study, provided important background information, and requested public participation.

- Public Open House: A Public Open House was used to present alternatives to the Conceptual Plan. This Open House was conducted on April 15, 1997, in Keyser, West Virginia.

- Public Meeting: A public meeting will be held on Thursday, August 14, 1997, from 7:00 to 9:00 p.m., at the Mineral County Health Center, Harley O. Staggers Sr. Drive, Keyser, West Virginia. The public meeting will focus on discussing the Draft Master Plan and Integrated EIS. The purpose of this meeting is to receive comments on the Draft Master Plan Update and Integrated Environmental Impact Statement.

10.3 Statement Recipients

The following individuals and agencies have received a copy of the draft Master Plan Update and Integrated Environmental Impact Statement:

Individual	Title
Colonel James Fields	Chief, Law Enforcement, West Virginia Division of Natural Resources
Dr. Robert A. Bachman	Deputy Director, Maryland Department of Natural Resources
Dr. Roland C. Steiner	Associate Director, Water Resources Interstate Commission on the Potomac River Basin
Honorable Alan B. Mollohan	House of Representatives
Honorable Allen V. Evans	West Virginia House of Delegates
Honorable Barbara A. Mikulski	United States Senate
Honorable Carl C. Thomas	West Virginia House of Delegates
Honorable Jane T. Nishida	Secretary, Maryland Department of the Environment
Honorable Jerry Mezzatesta	West Virginia House of Delegates
Honorable John D. Rockefeller IV	United States Senate
Honorable John R. Griffin	Secretary, Maryland Department of Natural Resources
Honorable Jon Blair Hunter	West Virginia State Senate
Honorable Mike Ross	Senator
Honorable Paul S. Sarbanes	United States Senate
Honorable Robert C. Byrd	United States Senate
Honorable Sarah Minear	Senator
Honorable Walter Helmiek	Senator
Honorable Warren Harness	Mayor, Town of Ridgeley
Mr. Carlton Davis	Dan's Marine Service
Mr. Charles B. Felton, Jr.	Director, West Virginia Division of Natural Resources
Mr. Christopher M. Clower	Supervisor, West Virginia Field Office, U.S. Fish and Wildlife Service
Mr. Dan J. Massey	Manager, Tourism Development
Mr. Danny Evans	Planning Director, Mineral County Planning Commission
Mr. David Jenkins	American Canoe Association, Inc.
Mr. David Marple	Maryland Natural Resources Police

Mr. Gene Piotrowski	Director, Greenways and Resources Planning
Mr. Gerald Lewis	District III Fisheries Biologist, West Virginia Division of Wildlife and Natural Resources
Mr. Herbert M. Sachs	Executive Director, Interstate Commission on the Potomac River Basin
Mr. J. Rodney Little	State Historic Preservation Officer
Mr. James W. Rawson	Coordinator, Wildlife Resources Division
Mr. John Nelson	Planning and Zoning Office
Mr. Kenneth Pavol	Area Manager, Mount Nebo Work Center
Mr. Lenny Kotkiewicz	U.S. Army Corps of Engineers, North Atlantic Division
Mr. Mark R. Spencer	Chief, Western Region, Maryland Department of Natural Resources
Mr. Michael Bland	County Coordinator, Mineral County Commission
Mr. N. Russell Newman	Reservoir Manager
Mr. Rex Riffle	Mineral County Parks and Recreation Commission
Mr. Robert D. Harman	President, Mineral County Commission
Mr. Ronald M. Kreitner	Director, Maryland Office of Planning
Mr. Scott Rotruck	Anchor Energy Corporation
Mr. Steve Brown	West Virginia Department of Natural Resources
Ms. Doris Marks	Mayor, Town of Carpendale
Ms. Kay Vaughan	Mineral County Development Authority

SECTION 11

SUMMARY AND CONCLUSIONS

Under the authority of the 1995 Energy and Water Development Appropriations Act (Public Law 103-316, 108 Stat. 1701, dated 26 August 1994), the U.S. Army Corps of Engineers, Baltimore District prepared the 1997 Master Plan Update. The study area includes the Jennings Randolph Lake and associated project lands, which are located in Garret County, Maryland, and Mineral County, West Virginia. The 1997 Master plan Update reflects changes that have occurred to the site, in the region, in recreation trends, and in Corps policy in the years since the original master plan was completed. The purpose of the update is to provide a planning guide for the use and development of natural and constructed resources on Corps fee-owned land at Jennings Randolph Lake. The master plan is the basic document guiding Corps responsibilities pursuant to Federal laws to preserve, conserve, restore, maintain, manage, and develop the project lands, waters, and associated resources. As a planning document, the Master Plan Update presents conceptual plans, rather than details of design or administration.

The updated Master Plan has been prepared in accordance with Engineering Regulation (ER) and Engineering Pamphlet (EP) 1130-2-550, Chapter 3, Project Master Plans and Operational Management Plans, dated November 1996. This regulation prescribes "an overall land and water management plan, resource objectives, and associated design and management concepts" that provides the "best possible combination of response to regional needs, resource capabilities and suitabilities, and expressed public interests and desires consistent with authorized project purpose." Additionally, as specified in the regulation, the master plan contributes to "providing a high degree of recreation diversity within the region;" emphasizes the "particular qualities, characteristics, and potentials of the project;" and exhibits "consistency and compatibility with national objectives and other state and regional goals and programs." The integrated EIS addresses impacts of the alternatives and the Recommended Plan in a programmatic fashion, which is consistent with the conceptual level of design. Site-specific NEPA documentation will be prepared for individual development activities as the Master Plan is implemented and more detailed designs are available.

The Master Plan Update Process has included review and evaluation of the 1973 Project Master Plan, data gathering, analysis of economic and environmental impacts of alternative and recommended plans, formal and informal in-house and agency coordination, preparation of preliminary concepts and alternative plans, public involvement activities, selection of a proposed Recommended Plan, and technical and legal review of this document. In addition, the proposed actions satisfy all project purposes as defined in the original project authorization.

Preparation of the Master Plan Update involved many decisions about future development and management of the project. The update describes and directs a general land and water management plan, the Recommended Plan, that reflects regional recreational and environmental needs, resource capabilities, project constraints, and expressed public interests and desires.

The Recommended Plan provides the conceptual guidance for the development and future management of recreation facilities at the project. Development actions outlined in the document are expected to be carried out over a 10 to 15 year time span. It should be recognized the project is dynamic and that continual updating of the Master Plan will be necessary to respond to new and different conditions as changes occur. The development sequence for the facilities will be determined by a number of factors which includes the availability of funding; public interest or demand; and the availability, improvement, or construction of supporting infrastructure. The facilities could be funded through a variety of sources such as O&M funds, cost-sharing partnerships, congressional appropriations, private funding (concessions), and/or other Federal and state agency funding. However, this Master Plan does not provide the authority to fund new facilities, or design and construct new facilities or enhancements to existing facilities.

The Recommended Plan includes several enhancements to existing recreation facilities and one new recreation area at Hogback Ridge. The upgrades and enhancements to existing recreation areas include a beach and swimming area, additional picnic shelters, water and sewer upgrades, a swimming pool and concessions, a camp store concession, cabins, and a campground. The new development at Hogback Ridge may include a lodge, several cabins, a beach, and a small to medium sized marina. These areas may be developed as funding and developer interest becomes available.

The estimated annual increase to visitation expected with full development of the Recommended Plan is 42,500 visitors, for an estimated annual visitation of 118,500 visitors. This increase in visitation will result in an economic impact from both resident and non-resident sectors of approximately $3,500,000; an increase of $2,000,000 from the existing conditions a the project. Approximately, 63 full-time equivalent jobs will be needed to supply the labor necessary to produce these goods and services.

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ANNEX A

List of Preparers

ANNEX A
Jennings Randolph Lake Master Plan Update and Programmatic EIS
LIST OF PREPARERS

Name	Education and NEPA/Economics Experience
Lacy E. Evans Project Manager, Outdoor Recreation Planner	B.S., Parks and Recreation MLA Landscape Architecture, in progress 6 Years
Heather Wells Project Manager, Environmental Planner	M.A., Biology 3 Years
Andrea Walker Recreation Specialist	B.S., Recreation and Leisure Administration 3 Years
Alysia Koufos Biologist, Environmental Planner	B.S., Biology 2 Years
Marianne Matheny Economist	B.A., Economics 12 Years
Fontella Moore Social Scientist	B.S., Social Work 13 Years
Mark Baker Cultural Specialist	B.A., History and Political Science 19 Years

ANNEX B

Public Involvement and Pertinent Correspondence

ON: Issuing a directive to the Commissioner of Customs increasing guaranteed access levels.

EFFECTIVE DATE: July 24, 1996.

FOR FURTHER INFORMATION CONTACT: Naomi Freeman, International Trade Specialist, Office of Textiles and Apparel, U.S. Department of Commerce, (202) 482–4212. For information on the quota status of these limits, refer to the Quota Status Reports posted on the bulletin boards of each Customs port or call (202) 927–5850. For information on embargoes and quota re-openings, call (202) 482–3715.

SUPPLEMENTARY INFORMATION:

Authority: Executive Order 11651 of March 3, 1972, as amended; section 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854); Uruguay Round Agreements Act.

On the request of the Government of the Dominican Republic, the U.S. Government agreed to increase the 1996 Guaranteed Access Levels for Categories 338/638 and 448.

A description of the textile and apparel categories in terms of HTS numbers is available in the CORRELATION: Textile and Apparel Categories with the Harmonized Tariff Schedule of the United States (see **Federal Register** notice 60 FR 65299, published on December 19, 1995). Also see 61 FR 1359, published on January 19, 1996.

The letter to the Commissioner of Customs and the actions taken pursuant to it are not designed to implement all of the provisions of the Uruguay Round Agreements Act and the Uruguay Round Agreement on Textiles and Clothing, but are designed to assist only in the implementation of certain of their provisions.

Troy H. Cribb,

Chairman, Committee for the Implementation of Textile Agreements.

Committee for the Implementation of Textile Agreements

July 19, 1996.

Commissioner of Customs,
Department of the Treasury, Washington, DC 20229.

Dear Commissioner: This directive amends, but does not cancel, the directive issued to you on January 11, 1996, by the Chairman, Committee for the Implementation of Textile Agreements. That directive concerns imports of certain cotton, wool and man-made fiber textile products, produced or manufactured in the Dominican Republic and exported during the twelve-month period which began on January 1, 1996 and extends through December 31, 1996.

Effective on July 24, 1996, you are directed to increase the Guaranteed Access Levels for the following categories:

Category	Guaranteed Access Level
338/638	3,150,000 dozen.
448	60,000 dozen.

The Committee for the Implementation of Textile Agreements has determined that these actions fall within the foreign affairs exception of the rulemaking provisions of 5 U.S.C. 553(a)(1).

Sincerely,

Troy H. Cribb,

Chairman, Committee for the Implementation of Textile Agreements.

[FR Doc. 96–18878 Filed 7–24–96; 8:45 am]

BILLING CODE 3510–DR–F

DEPARTMENT OF DEFENSE

Department of the Army

Corps of Engineers

Intent To Prepare a Draft Environmental Impact Statement (DEIS) for the Proposed Master Plan Update at Jennings Randolph Lake, Maryland and West Virginia

AGENCY: U.S. Army Corps of Engineers, DOD.

ACTION: Notice of Intent.

SUMMARY: The Baltimore District, U.S. Army Corps of Engineers, proposes to update the Master Plan for Jennings Randolph Lake. The existing master plan was prepared in 1973 and does not address changes that have occurred since its development or since completion of the project. Since completion of the master plan, water quality in the lake and downstream of the dam has significantly improved, thereby increasing recreational opportunities. The purpose of the master planning process is to provide direction for project development and use as well as stewardship of project resources through the protection, conservation, and enhancement of natural, cultural, and constructed resources. The master plan update is authorized by the Energy and Water Development Appropriations Act of 1995.

FOR FURTHER INFORMATION CONTACT: Questions about the proposed action and DEIS can be addressed to Ms. Robyn Colosimo, Baltimore District, U.S. Army Corps of Engineers, Attn: CENAB–PL–EP, P.O. Box 1715, Baltimore, Maryland 21203–1715, telephone (410) 962–4995.

SUPPLEMENTARY INFORMATION: 1. The update of the Jennings Randolph Master Plan was initiated by the Energy and Water Development Appropriations Act of 1995, which states "[the] Corps is directed to use available funds to initiate work on a revised master plan for Jennings Randolph Lake to reflect changing demands. To the extent practical, the Corps should consult and work with all affected interest groups in developing the revised plan."

2. The project is located in Garrett County, Maryland, and Mineral County, West Virginia, on the North Branch Potomac River, approximately 8 miles upstream from Bloomington, Maryland. The project was authorized by the Flood Control Act of 1962 (Pub. L. 87–874) to provide water quality control in the North Branch, industrial and municipal water supply for the Potomac River basin, flood control protection for communities along the North Branch, and recreation. Construction of the dam was initiated in 1971 and completed in 1981. At full conservation pool, the lake, with a watershed of 263 square miles, extends upstream from the dam a distance of 6.6 miles and has a surface area of 952 acres. The total project, land and water, covers an area of 4,500 acres. Operation of the project has resulted in significant improvement to water quality in the North Branch Potomac River downstream of the dam, particularly during low flow conditions.

3. The Corps operates and maintains five recreation sites at Jennings Randolph including a campground, two overlooks, a picnic area, and a boat launch. The Maryland Department of Natural Resources (MD DNR) is presently constructing a boat launch facility in Maryland. Planned future development at this location will include a picnic area and campground. Since 1983, Maryland and West Virginia have stocked the lake with a variety of fish, including walleye; largemouth and smallmouth bass; channel catfish; and rainbow, lake, and brown trout. MD DNR raises trout in pens located in the stilling basin below the dam for stocking the Potomac River and other Maryland streams. The Mineral County Park and Recreation Commission operates and maintains an access area for whitewater rafting and fishing downstream of the dam near Barnum, West Virginia.

4. The master plan will determine the types and quantities of development the project can support environmentally and economically. The master plan will incorporate information from previous and ongoing studies, including the Jennings Randolph Lake Reallocation Study and the North Branch Potomac River Water Resources Reconnaissance Study, visitor needs, local and regional interests, and resource agency concerns. The master plan will identify alternatives for recreational

lopment and natural resource
agement at a conceptual level. The
ysis of alternatives will evaluate
istency with authorizing legislation;
ect operations, and resource use
ctives; economic benefits; and
ntial impacts to environmental and
ural resources. Recommendations
uture project development and
agement will be made based on this
ysis.

The Baltimore District is preparing
programmatic DEIS that will be
integrated with the Master Plan.
Potential effects of proposed projects to
water quality, fish and wildlife,
etation, cultural resources,
aesthetics, recreation, and other
resources will be investigated. If
applicable, the DEIS will also apply
guidelines issued by the Environmental
Protection Agency under authority of
Section 404 of the Clean Water Act of
7 (Pub. L. 95–217).

. The Baltimore District invites
interested Federal, state, and local
agencies and other interested
anizations and parties to participate
his study. Agencies that will be
olved in the DEIS process include,
are not limited to, the U.S.
vironmental Protection Agency, the
. Fish and Wildlife Service, the
ryland Department of Natural
sources, the West Virginia
partment of Natural Resources,
ryland Historical Trust, West
ginia Department of Culture and
story, North Branch Potomac River
sk Force, and the Interstate
mmission on the Potomac River
sin. Coordination letters, study
lletins, notices, and workshops will
included as part of the public
volvement program, as needed.

7. The DEIS is tentatively scheduled
be available for public review in
arch of 1997.

rold L. Nelson,

st. Chief, Planning Division.

R Doc. 96–18882 Filed 7–24–96; 8:45 am]

LING CODE 3710–41–M

EPARTMENT OF EDUCATION

otice of Proposed Information ollection Requests

GENCY: Department of Education.

CTION: Proposed collection; comment equest.

UMMARY: The Director, Information esources Group, invites comments on he proposed information collection equests as required by the Paperwork eduction Act of 1995.

DATES: Interested persons are invited to submit comments on or before September 23, 1996.

ADDRESSES: Written comments and requests for copies of the proposed information collection requests should be addressed to Patrick J. Sherrill, Department of Education, 600 Independence Avenue, S.W., Room 5624, Regional Office Building 3, Washington, DC 20202–4651.

FOR FURTHER INFORMATION CONTACT: Patrick J. Sherrill (202) 708–8196. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

SUPPLEMENTARY INFORMATION: Section 3506 of the Paperwork Reduction Act of 1995 (44 U. S. C. Chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. OMB may amend or waive the requirement for public consultation to the extent that public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform its statutory obligations. The Director of the Information Resources Group publishes this notice containing proposed information collection requests prior to submission of these requests to OMB. Each proposed information collection, grouped by office, contains the following: (1) Type of review requested, e.g., new, revision, extension, existing or reinstatement; (2) Title; (3) Summary of the collection; (4) Description of the need for, and proposed use of, the information; (5) Respondents and frequency of collection; and (6) Reporting and/or Recordkeeping burden. OMB invites public comment at the address specified above. Copies of the requests are available from Patrick J. Sherrill at the address specified above.

The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department, (2) will this information be processed and used in a timely manner, (3) is the estimate of burden accurate, (4) how might the Department enhance the quality, utility, and clarity of the information to be collected, and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology.

Dated: July 19, 1996.

Gloria Parker,

Director, Information Resources Group.

Office of the Under Secretary

Type of Review: New.

Title: Evaluation of the Tech-Prep Education Program.

Frequency: Annually.

Affected Public: Individuals or households; Not-for-profit institutions; State, local or Tribal Government, SEAs or LEAs.

Reporting and Recordkeeping Hour Burden:

Responses: 602

Burden Hours: 301

Abstract: This study is designed to describe state and local tech-prep programs and activities funded under the National Tech-Prep Education Program, and to identify best practices and effective approaches of local programs, and student outcomes.

[FR Doc. 96–18869 Filed 7–24–96; 8:45 am]

BILLING CODE 4000–01–P

Notice of Proposed Information Collection Requests

AGENCY: Department of Education.

ACTION: Submission for OMB review; comment request.

SUMMARY: The Director, Information Resources Group, invites comments on the proposed information collection requests as required by the Paperwork Reduction Act of 1995.

DATES: Interested persons are invited to submit comments on or before August 26, 1996.

ADDRESSES: Written comments should be addressed to the Office of Information and Regulatory Affairs, Attention: Wendy Taylor, Desk Officer, Department of Education, Office of Management and Budget, 725 17th Street, NW., Room 10235, New Executive Office Building, Washington, DC 20503. Requests for copies of the proposed information collection requests should be addressed to Patrick J. Sherrill, Department of Education, 600 Independence Avenue, SW., Room 5624, Regional Office Building 3, Washington, DC 20202–4651.

FOR FURTHER INFORMATION CONTACT: Patrick J. Sherrill (202) 708–8196. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

SUPPLEMENTARY INFORMATION: Section 3506 of the Paperwork Reduction Act of

U.S. Army Corps
Of Engineers
Baltimore District

Jennings Randolph Lake Master Plan Update

Bulletin #1 **Fall 1996**

FACTS ABOUT JENNINGS RANDOLPH LAKE

Jennings Randolph Lake is located on the boundary between Maryland and West Virginia on the North Branch Potomac River, 8 miles upstream from its confluence with the Savage River and 230 miles upstream of Washington, D.C. The project covers a total area of 4,500 acres: 2,700 in Maryland, and 1,800 in West Virginia.

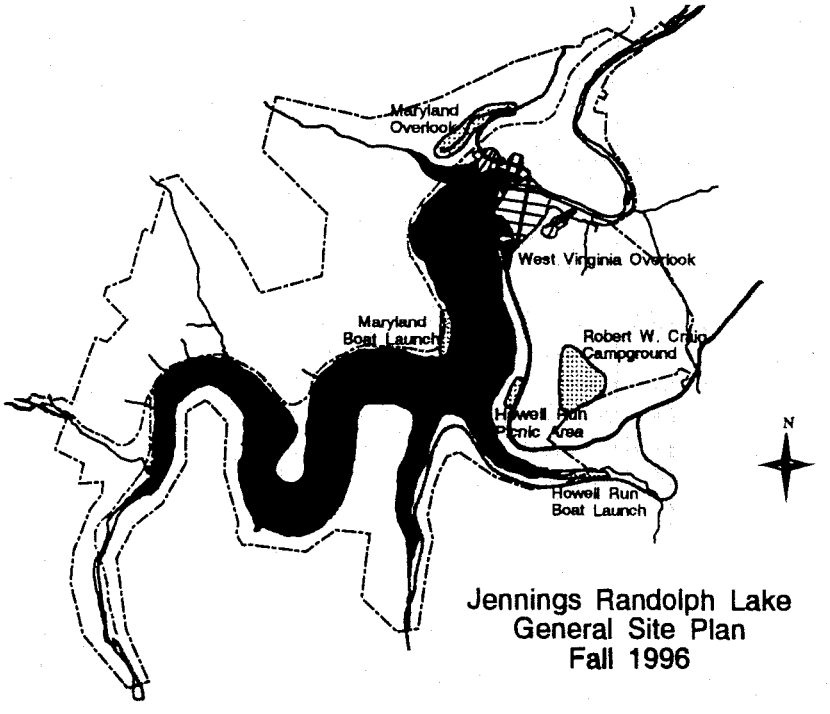
The lake provides water quality control in the North Branch and mainstem Potomac Rivers, municipal water supply for the Washington metropolitan area, flood protection for communities in the North Branch Potomac River basin, and regional recreation opportunities. Recreation facilities are available for camping, hiking, boating, fishing, hunting, sightseeing, and picnicking.

Recreation areas include the Howell Run Picnic Area, Howell Run Boat launch, Robert W. Craig Campground, West Virginia Overlook and Visitor Center, and Maryland Overlooks. The Maryland Department of Natural Resources (MDDNR) has constructed a two-lane concrete boat launch, floating pier, and parking area on the opposite side of the lake from the Howell Run Picnic area. This facility is expected to be open for the 1997 recreation season.

THE MASTER PLAN UPDATE

Conditions at Jennings Randolph Lake have changed substantially since the project's master plan was completed in 1973. The most significant change is the improvement in the lake's water quality, and its ability to support a recreational lake fishery. The water quality of the lake has gone from extremely acidic and unable to sustain aquatic life to only slightly acidic and able to support a recreational fishery and other water-based recreation. The state of Maryland also operates a trout hatchery in the stilling basin below the dam. Other changes in the area include land use, visitor trends, the regional economy, and environmental regulations.

The Corps of Engineers is required by regulation (ER 1130-2-435) to have current master plans for all Corps of Engineers Projects. Therefore, during 1996 and 1997, the Baltimore District will update the 1973 Master Plan and will write an accompanying Environmental Impact Statement (EIS).



Jennings Randolph Lake
General Site Plan
Fall 1996

The master plan deals in concepts, not in details of design or administration. Master Plans *do not* provide the funds required to construct new facilities or enhancements to existing facilities. Approval of a Master Plan will not automatically guarantee implementation of the recommendations.

The update of the Jennings Randolph Master Plan (1973) will investigate the possibilities of new development and enhancements to existing recreation facilities based on population trends, visitor input, regional recreation needs, environmental resource needs, project objectives, and management philosophy. The resulting plan will provide a framework for making good future decisions about protecting the project's natural and manmade resources while providing high-quality recreation for visitors. When the updated plan has been adopted, it will guide the preservation and development of the lake for the next decade.

THE MASTER PLAN PROCESS

We are planning for Jennings Randolph using a systematic process that will allow us to--

- Analyze existing conditions at the project and trends in the region for resource preservation and for facility use.
- Prepare alternative plans based on visitor and agency input, project purpose and objectives, and analysis of existing conditions.
- Prepare a recommended plan by determining which aspects of alternative plans are economically feasible and suitable to the property.

A multi-discipline team has been assigned to manage the process. The team includes the Jennings Randolph project manager, the project staff, and technical specialists from the Corps of Engineers, Baltimore District. The name and address of the contact person is listed under the section entitled "Your Comments."

WHAT HAPPENS NEXT?

We will continue to receive public comments and meet with other agencies and concerned groups about the master plan and environmental impact statement. Presently, we are collecting data to establish the baseline conditions, calculating existing recreation carrying capacity, and determining future recreation demand based on the current visitation and results of the visitor survey conducted in July. We will also be incorporating comments we receive from involved agencies, concerned groups, and project visitors.

Based on this information, the team will identify potential recreation facility alternatives. This winter we will produce a second bulletin to share with you the alternatives and to request your comments. The alternative facilities will be evaluated based on the established goals and objectives of the project, on public input, and in consideration of the environment and economics.

JULY 4TH VISITOR SURVEYS

During the week of the 1996 Fourth of July holiday, the team conducted visitor surveys to gather visitor opinions and suggestions about the project. To minimize the inconvenience to project visitors, the survey was composed of basic questions such as "What activities do you participate in? How do you rate the facilities? What is your willingness to pay? and How was the quality of your experience?" The survey was expected to take a few minutes; in reality, these interviews took much longer. Visitors were eager to share their feelings about the project and offer suggestions for improvements and new facilities. We appreciate all our visitors for their contributions during their vacation time.

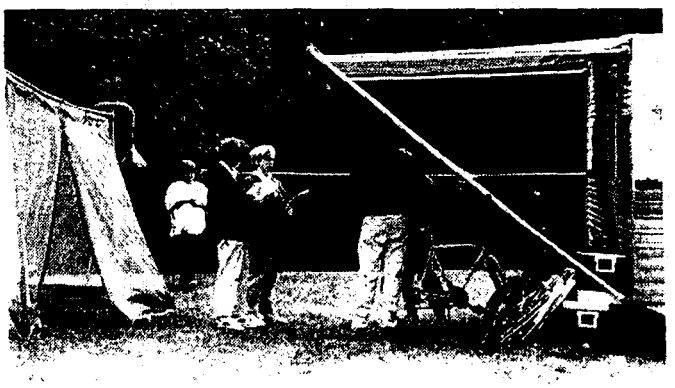


Photo: Corps staff administering recreation surveys

Generally, most visitors are happy with Jennings Randolph Lake and the facilities that are provided. However, there were a number of new amenities that visitors felt would make their stay more comfortable. The following statements summarize the visitor issues and recommendations that were presented to us during the interviews. The statements are not listed in order of priority. Please take a moment to look them over and let us know if you have any further comments. Additional comments may be submitted through channels noted in the section "Your Comments." We will consider these issues and recommendations during the preparation of the alternative recreation facilities.

- There is no designated swimming area at Jennings Randolph Lake; swimming is allowed from boatside. Many of the project visitors would like a swimming area at the Robert W. Craig Campground, along the lake shoreline, or both.
- Visitors must drive approximately 15 minutes to Elk Garden, Maryland, to the closest convenience store or approximately 30 minutes to Keyser, West Virginia, to the nearest large grocery store. Project visitors would like a small concession or general store in the Robert W. Craig Campground to purchase such things as firewood, ice, milk, bread, snacks, and facilities to do laundry.
- Boaters must leave the project to buy gas as well as bait for their boating and fishing excursions. A concession was recommended at the lake for gas, bait, and boat rentals.
- Boaters must remove their boats from the lake at the end of each day since there are no temporary or overnight docking facilities. A dock at the lake or a storage facility on the project lands is recommended for frequent boaters and those staying at the campground.
- Although the majority of those surveyed indicated that the lake provided a good fishing experience, a few identified some improvements for fishing such as lighting the boat launch to allow safer access for night and early morning fishing, additional stocking, improved aquatic habitat, and opening restricted areas such as the Elklick Run Cove. Recommendations were also received for opening the restricted area below the dam for greater access to the North Branch Potomac River.
- The area surrounding the lake is very steep, and access to the lake at points other than those developed is difficult and somewhat dangerous. Visitors would like more developed access to the lake, especially for activities such as shoreline fishing and nature walking. Specifically, visitors would like to have a lake access from the Howell Run Picnic area.
- Visitors recommended the following recreational facilities be developed or expanded at Jennings Randolph Lake: more trails throughout the project, a nature center with interactive displays, a game room, tennis courts, horseshoe pits, volleyball courts, and a shooting range. Recommended improvements to existing facilities include additional camp sites (including primitive sites), potable water at all campsites and in the picnic area, reserved campsites near bathhouses for the disabled, and more flush toilets throughout the project.
- Children's activities at Jennings Randolph usually require direct supervision. Visitors desire more activities and facilities for small children, including another playground at the campground.
- Many visitors enjoy the relaxing experience that the project provides. New development should be sparse and naturalistic to maintain the peaceful atmosphere of Jennings Randolph Lake.
- The topography of the land surrounding the lake and the remote location of the lake has not encouraged high-intensity facilities to be developed. We received recommendations to review the potential of high-intensity development such as a golf course and a water slide park at Jennings Randolph Lake.
- The majority of accessible facilities are located on the West Virginia side of the lake. In response to numerous requests for a Maryland access site, the State of Maryland has constructed a boat launch on the Maryland side of the reservoir. Future development at this site may include a day-use area and campground.
- Visitors did not perceive any problems at Jennings Randolph related to noise, litter, or threat to personal safety. Current Ranger patrols will continue and the Maryland and West Virginia Departments of Natural Resources (MDDNR and WVDNR), through the Interstate Compact, will also enforce natural resource laws and boating regulations, which will provide an added sense of security.

ADDITIONAL ACTIVITIES IN THE BASIN

The Baltimore District, Corps of Engineers, is also conducting other studies in the North Branch Potomac River Basin. These studies include the Jennings Randolph Reallocation Feasibility Study and the Upper North Branch Potomac River Environmental Restoration Feasibility Study. The Corps is also investigating the potential interest for initiating a Section 1135 study for Gas Supersaturation below the dam.

The Jennings Randolph Lake Reallocation Feasibility Study will determine whether reallocating storage at Jennings Randolph Lake will meet water supply needs for the Washington, D.C. area. The study will also evaluate the potential impacts on the existing authorized project purposes and on environmental and recreational resources. The study was initiated in December 1990 and is expected to be completed in April 1997.

The North Branch Potomac River Environmental Restoration Feasibility Study is a cost-shared study with MDDNR, WVDNR, West Virginia Department of Environmental Protection and the Maryland Department of the Environment. The feasibility study was initiated in September 1996. The study will focus on improving the degraded aquatic environment and restoring habitat areas in the North Branch upstream of Jennings Randolph Lake. The study will provide a recommended plan to significantly improve the ecosystem in a cost-effective manner. The recreation facilities identified in the North Branch Potomac River Reconnaissance study will be evaluated in the Master Plan Update along with other facility alternatives.

The Jennings Randolph Lake Section 1135 Study will investigate the gas supersaturation below the dam caused by high water releases from the reservoir. At certain levels, the gas supersaturation has caused fish kills in the troutpens directly below the dam. Based on the findings of the study, we will identify potential operational and structural modifications to reduce or eliminate the negative impacts of gas supersaturation on the fish and other aquatic resources in this stretch of the North Branch Potomac River. The study will begin once a Letter of Intent is received by the non-Federal sponsor.

Photo: Corps staff administering recreation surveys

In addition to the above mentioned studies, President Clinton recently signed legislation allowing the States of Maryland and West Virginia, with the concurrence of the U.S. Army Corps of Engineers, to provide joint natural resource management and enforcement of laws and regulations relating to natural resources and boating at the Jennings Randolph Lake Project. This is know as the Bi-State Law Enforcement Compact.

YOUR COMMENTS

You have been identified as a person interested in Jennings Randolph Lake. Please feel free to send us any comments or questions you have to us on the attached comment card. Questions or comments can also be directed to the Study Manager, Ms. Lacy Evans at **(410) 962-6018** or via e-mail at **lacy.e.evans@ccmail.nab.usace. army.mil**.

Once on the mailing list, you will receive future newsletters and information on the Master Plan update. If you do not wish to be included in future mailings, please return the card with that notation. Also, if we do not have your correct name and address, please fill out the card with the appropriate information and we'll correct our records. The study mailing list will *not* be provided to other organizations.

Do you know of anyone else who would be interested in receiving information on the master plan update? If so, please let us know and we'll add them to our mailing list.

You may also visit the Baltimore District Internet site for information on other District activities at **http://www.nab.usace.army.mil**.

Lacy E. Evans
Master Plan Study Manager
Operations Division
Baltimore District
U.S. Army Corps of Engineers

N. Russell Newman
Project Manager
Jennings Randolph Lake
Baltimore District
U.S. Army Corps of Engineers

Attach
Stamp
Here

U.S. Army Corps of Engineers
Jennings Randolph Lake Master Plan Update
Attn: CENAB-OP-TR (Ms. Lacy Evans)
P.O. Box 1715
Baltimore, MD 21203-1715

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEERS DISTRICT, BALTIMORE
CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MARYLAND 21203-1715

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OFFICIAL BUSINESS

☐ Please add my name to the study mailing list.

☐ Please remove my name from the study mailing list.

Name: _____

Title: _____

Company/Organization: _____

Address: _____

_____

Telephone No: ( ) _____

Fax No.: ( ) _____

E-mail address: _____

Comments: _____

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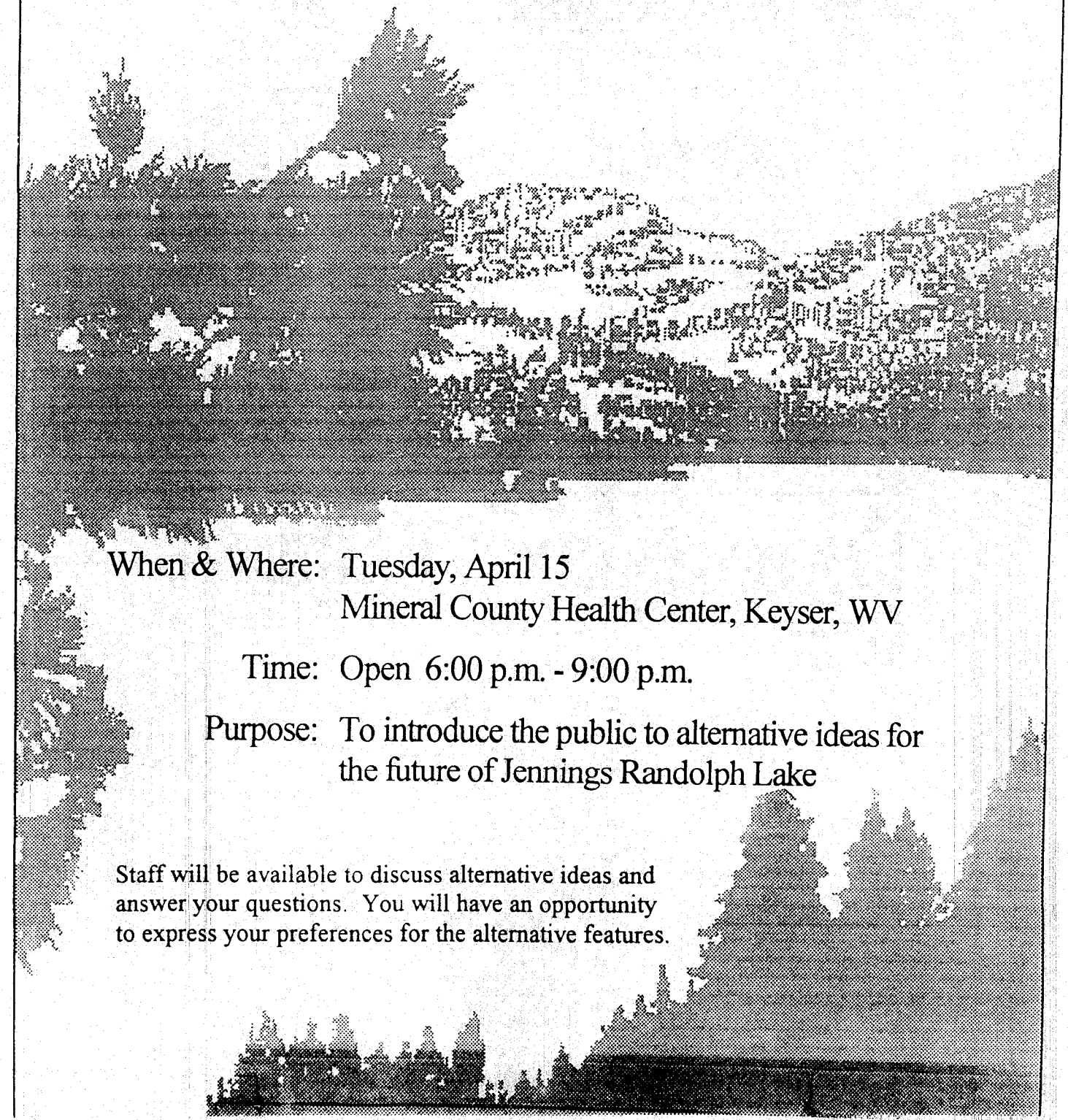
US Army Corps
of Engineers
Baltimore District

What's Happening at the Lake?



When & Where: Tuesday, April 15
Mineral County Health Center, Keyser, WV

Time: Open 6:00 p.m. - 9:00 p.m.

Purpose: To introduce the public to alternative ideas for the future of Jennings Randolph Lake

Staff will be available to discuss alternative ideas and answer your questions. You will have an opportunity to express your preferences for the alternative features.

Legal Advertisement
Jennings Randolph Lake
Master Plan Update
Public Open House
April 15, 1997
Mineral County
Health Center
Harley O. Staggers, Sr. Drive
Keyser, WV
6:00 to 9:00 p.m.

The open house will present information about alternative ideas for Jennings Randolph Lake. You are invited to participate anytime during open house hours and voice your opinion on the future of the lake. For more information contact Jennings Randolph Lake (304) 355-2346 or Baltimore District Office (410) 962-6018.
ap8-1t

Mineral Daily News-Tribune

FRIDAY

APRIL 11, 1997

JENNINGS RANDOLPH LAKE MASTER PLAN PUBLIC OPEN HOUSE will be held Tues., April 15, at the Mineral County Health Center from 6-9 p.m. The open house will present information about alternative ideas for the lake. For more information call 304-355-2346 or 410-962-6018.

Mineral
DAILY NEWS-TRIBUNE
'Serving the Potomac Valley with the News that Matters Most'
Volume 84, Number 83 | Keyser, West Virginia | 30 Cen

TUESDAY

APRIL 8, 1997

Randolph Lake open house set

A Jennings Randolph Lake Master Plan Update Public Open House will be held April 15 at the Mineral County Health Center, Harley O. Staggers Sr. Drive, Keyser, from 6-9 p.m.

The Open House will present information about alternative ideas for Jennings Randolph Lake.

Interested individuals are invited to participate anytime during the Open House hours and voice opinions on the future of the lake.

For more information contact Jennings Randolph Lake (304)355-2346 or Baltimore District Office (410)962-6018.

Jennings Randolph Lake
Master Plan Open House

Attendance Sheet - April 15, 1997

Name	Address and Agency	Phone Number
KEN PAVOL	MD. DNR FISHERIES SERVICE 1728 KING'S RUN RD. OAKLAND MD. 21550	(301) 334-8218
Rex R. Riffle	MCPRC	304-788-5732
Jack Sanders	Mineral Co.	304-788-1562 5481
Mike Haywood	Mike Haywood Dep	788-5540
W B Chambers	PNR - Ranger	822-3531
Lt. J. A. Moore	" "	" "
C.O. Dave Long	" "	" "
	" "	488-6020
Kay Vaughan		
Anne Palmer	Mineral Co. Chamber Commerce	788-2513
Sam Shawver	12613 Westernport Rd. S.H. Westernport MD	Work# 788-3333 or News-Tribune - 726-4488 FAX - 788-3398

Jennings Randolph Lake
Master Plan Update

Open House Instruction Sheet

Purpose

This open house is sponsored by the Corps of Engineers to allow the public to review plan alternatives, and indicate the plan elements liked and the plan elements not liked. The results of the preference survey will be considered, among other factors, in the preparation of the Conceptual Development Plan for the Jennings Randolph Lake Master Plan, 1997 update.

Step 1

Go to Station 1. A staff member will be available to answer questions and explain the alternative.

- Collect a color coded information sheet from that station
- Study the map and the list of elements
- Ask questions about the map or information sheet

Steps 2 - 4

Repeat Step 1 at Stations 2 through 4.

Step 5

Go to the Discussion Station. Review all the elements and the maps. Ask questions of the discussion leader.

Step 6

Go to the Preference Station. Fill out the Preference Form and deposit it in the Preference Box. Maps of all alternatives are located at the Preference Station to assist you in marking the Preference Form.

Thank you for attending the open house and for your comments.

ALTERNATIVE NO. 1

Main Elements

Robert W. Craig Campground

- Convert the Backloop vault toilets to flush toilets, provide potable water and showers
- Extend Sunset trail

Maryland Overlook

- Extend the Songbird trail

Maryland Boat Launch

- Fishing Pier

Howell Run Picnic Area

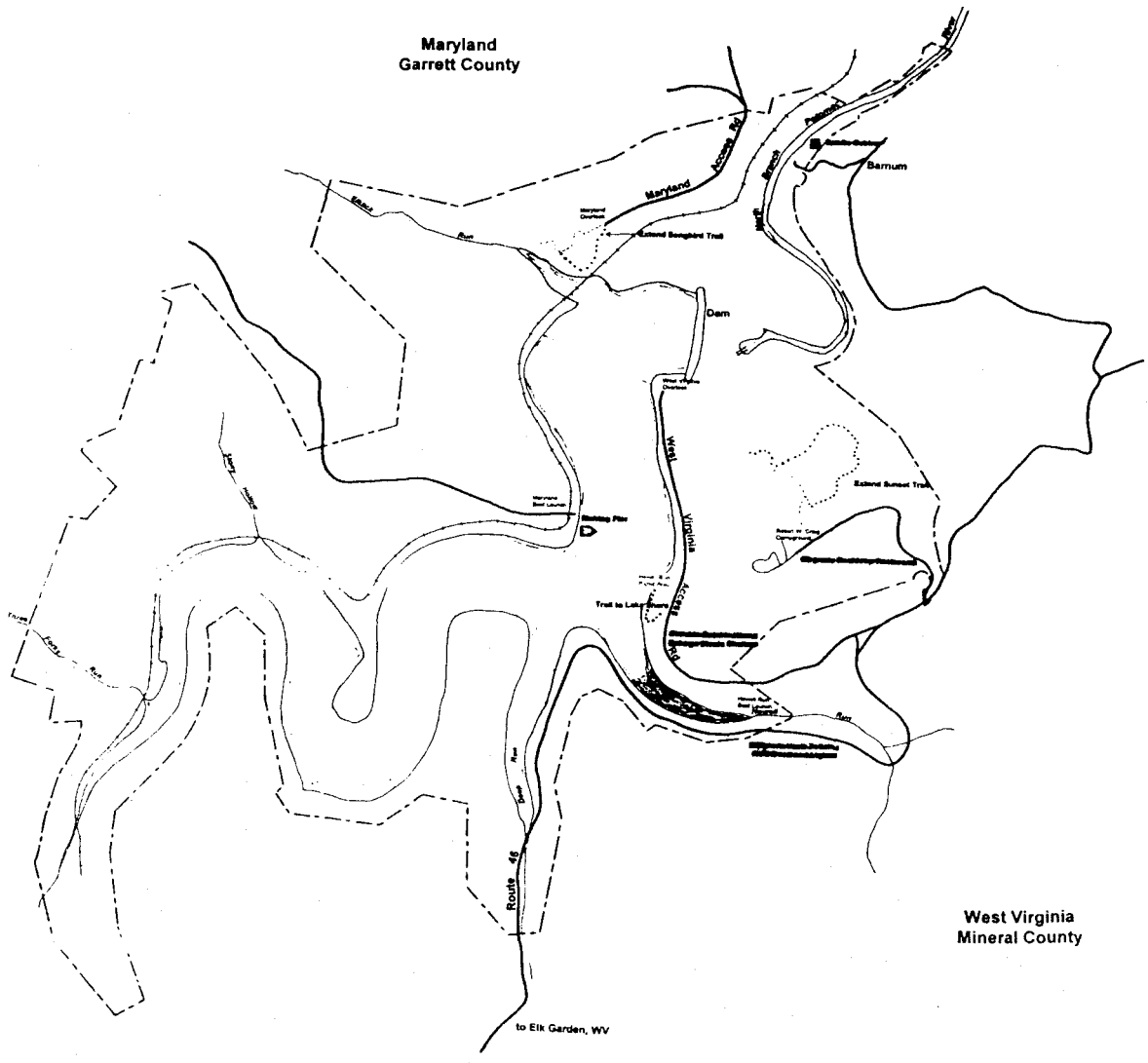
- Provide potable water
- Enlarge one picnic shelter
- Access to the lake shore for fishing

Howell Run Boat Launch

- Upgrade vault toilets
- Overhead lights

Barnum/Downstream

- Rustic cabins in Barnum White Water Area

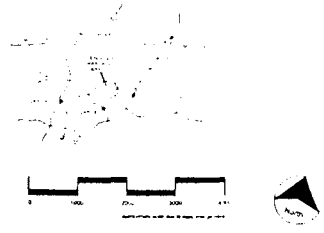


Alternative Number 1

Legend

Boundary
Existing Road
Existing Trail
Proposed Trail
Fishing Pier
Rustic Cabin
No Wake Zone
Upgrade Existing Facilities

Key Map



Jennings Randolph Lake
Master Plan
1997 update

Corps of Engineers
Baltimore District

ALTERNATIVE NO. 2

Main Elements

Robert W. Craig Campground

- Swimming pool with bathhouse
- Recreation Center
- Convenience Store
- Ball Courts (basketball, tennis, volleyball)
- Enlarge bathhouse
- Wading pool with a spray fountain for use by small children

Borrow Area

- 18-hole par 4 Golf Course and Club House with a pro-shop, snack concession, offices, cart storage, locker rooms, and maintenance area

West Virginia Overlook

- Enlarge the visitor center to accommodate interactive displays, presentations, and informational supplies

Maryland Boat Launch

- Cabins on the hill overlooking the boat launch
- Medium-sized Marina with fuel pumps (alternate location)

Howell Run Picnic Area

- Upgrade restrooms from vault toilets to flush toilets and provide potable water.
- One additional picnic shelter
- Access to the lake shore
- Fishing dock
- Beach/Swimming area (alternate location)

Deep Run

- Picnic areas along Route 46

Hogback Ridge

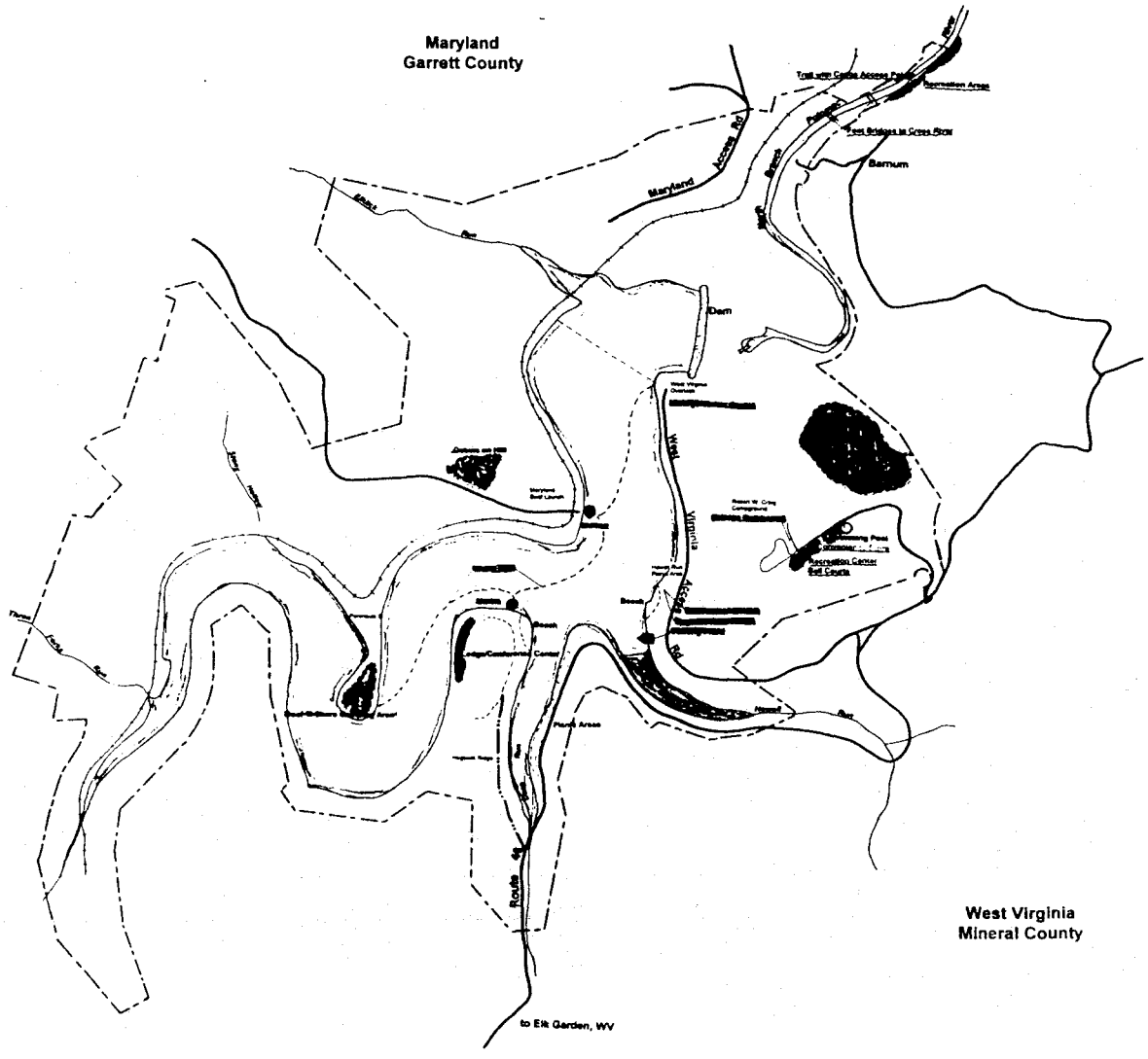
- Lodge/Conference Center and Cabins
- Medium-sized Marina (alternate location)
- Beach/Swimming area (alternate location)
- Family Campground
- Water Taxi to transport visitors from the recreation areas

Peninsula B

- Boat-to-Shore Camping area and boat mooring

Barnum/Downstream

- Trail with canoe access points, foot bridges to cross the river, parking area and 2-recreation areas

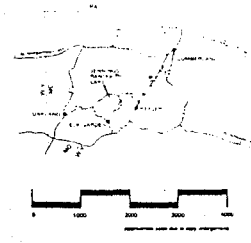


Alternative Number 2

Legend

- Boundary
- Existing Road
- Proposed Road
- Existing Trail
- Proposed Trail
- Water Taxi
- Marina
- Fishing Pier
- Cabins
- Swimming Pool
- No Wake Zone
- Upgrade Existing Facilities
- Developed Areas
- Golf Course
- Recreation Area
- Campground
- Beach/Swim Area
- Picnic Area
- Boat-to-Shore Camping

Key Map



Jennings Randolph Lake Master Plan

1997 update

Corps of Engineers
Baltimore District

ALTERNATIVE NO. 3

Main Elements

Borrow Area
- Group Camping Area (tent platforms, fire rings, outdoor seating)
- Extend Sunset Trail to Visitor Center

Maryland Boat Launch
- Campground on the hill overlooking the Maryland Boat Launch

Howell Run Picnic Area
- Trail from the picnic area along the water's edge to the West Virginia Overlook with fishing access points
- Enlarge one picnic shelter

Howell Run Boat Launch
- Upgrade the recreation area with potable water, overhead lights, telephone or call box, vault toilets
- Trail from Boat Launch to Howell Run Picnic Area

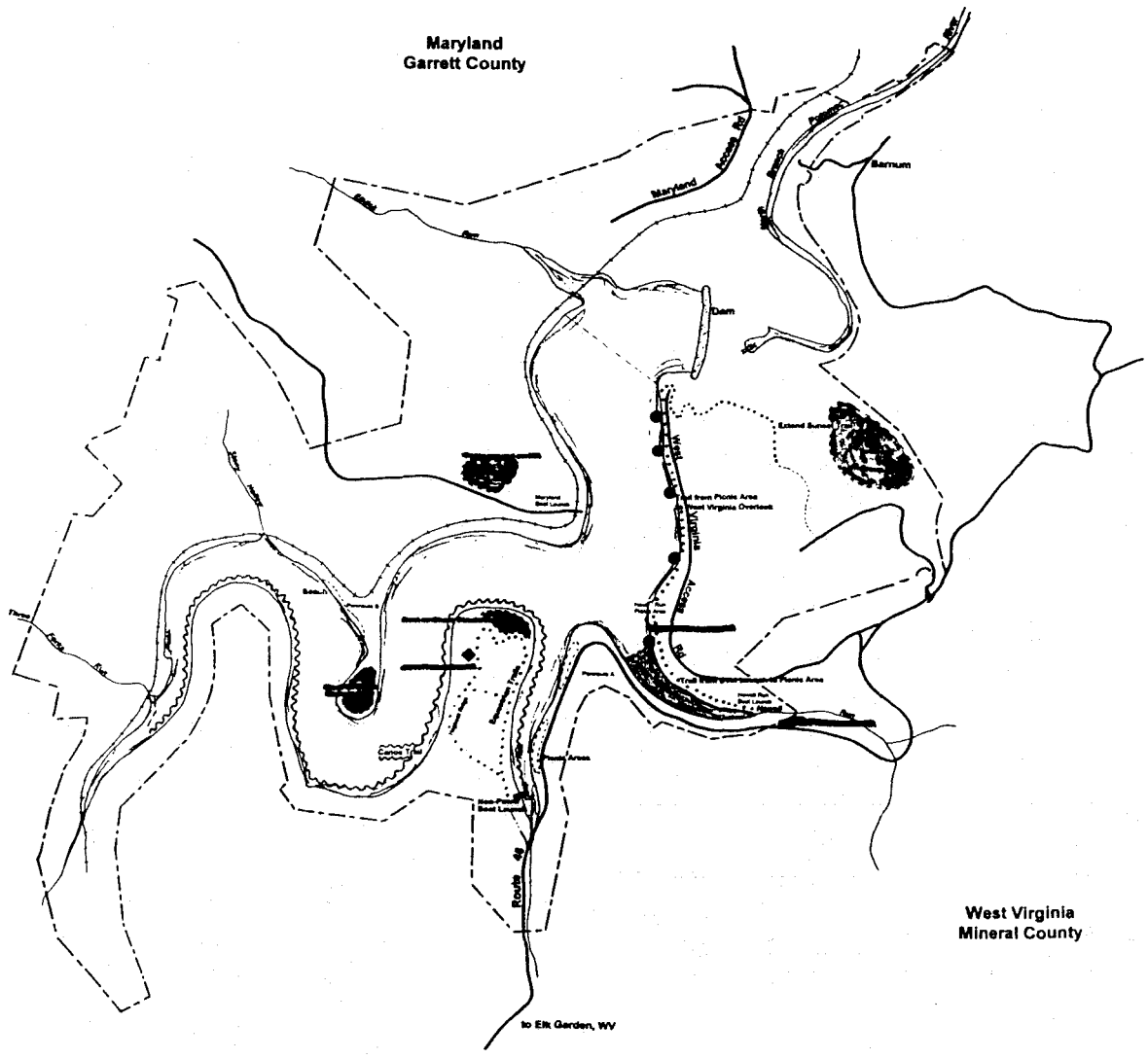
Deep Run
- Boat launch for non-power boats and Picnic Area
- Canoe trail along the West Virginia Shore

Peninsula A
- Pull-off picnic area along Route 46
- Trail to the lake

Hogback Ridge
- Boat-to-Shore Picnic Area and boat mooring
- Observation tower to serve as an interpretation center
- Equestrian trails and parking area for cars/trucks and trailers

Peninsula B
- Boat-to-Shore Camping area and boat mooring
- Beach/Swimming area

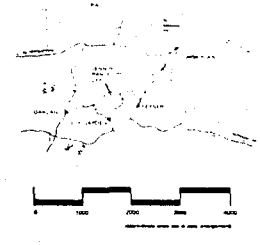
Miscellaneous
- Public hunting blinds and tree stands



Alternative Number 3

Boundary
Existing Road
Existing Trail
Proposed Trail
Observation Tower
Fishing Access Points
Non-Power Boat Launch
No Wake Zone
Upgrade Existing Facilities
Zone for Canoe Trail
Beach/Swim Area
Picnic Area
Boat-to-Shore Camping Area
Boat-to-Shore Picnic Area
Group Camp
Campground

Key Map



Jennings Randolph Lake
Master Plan
1997 update

Corps of Engineers
Baltimore District

ALTERNATIVE NO. 4

Main Elements

Robert W. Craig Campground

- Camper/boat storage
- Camp store with laundry facilities, game room, and equipment rentals
- Horseshoe Pits, Volleyball Courts, Tennis Courts, Basketball Courts, and a Miniature Golf course
- New Playground especially designed for small children in backloop
- Convert the Backloop vault toilets to flush toilets, provide potable water and showers

Borrow Area

- Efficiency Cabins and a Central Lodge
- Extend the Sunset Trail to the West Virginia Overlook via the West Virginia access road just above the administration buildings

Howell Run Picnic Area

- Beach/Swimming Area
- Fishing Pier
- Non-power Boat Launch
- Enhancements to the picnic area: a telephone or call box, potable water, flush toilets

Deep Run

- Water-Ski/Jet-Ski Slalom Course

Peninsula A

- Boat-to-Shore Picnic Area and boat mooring

Hogback Ridge

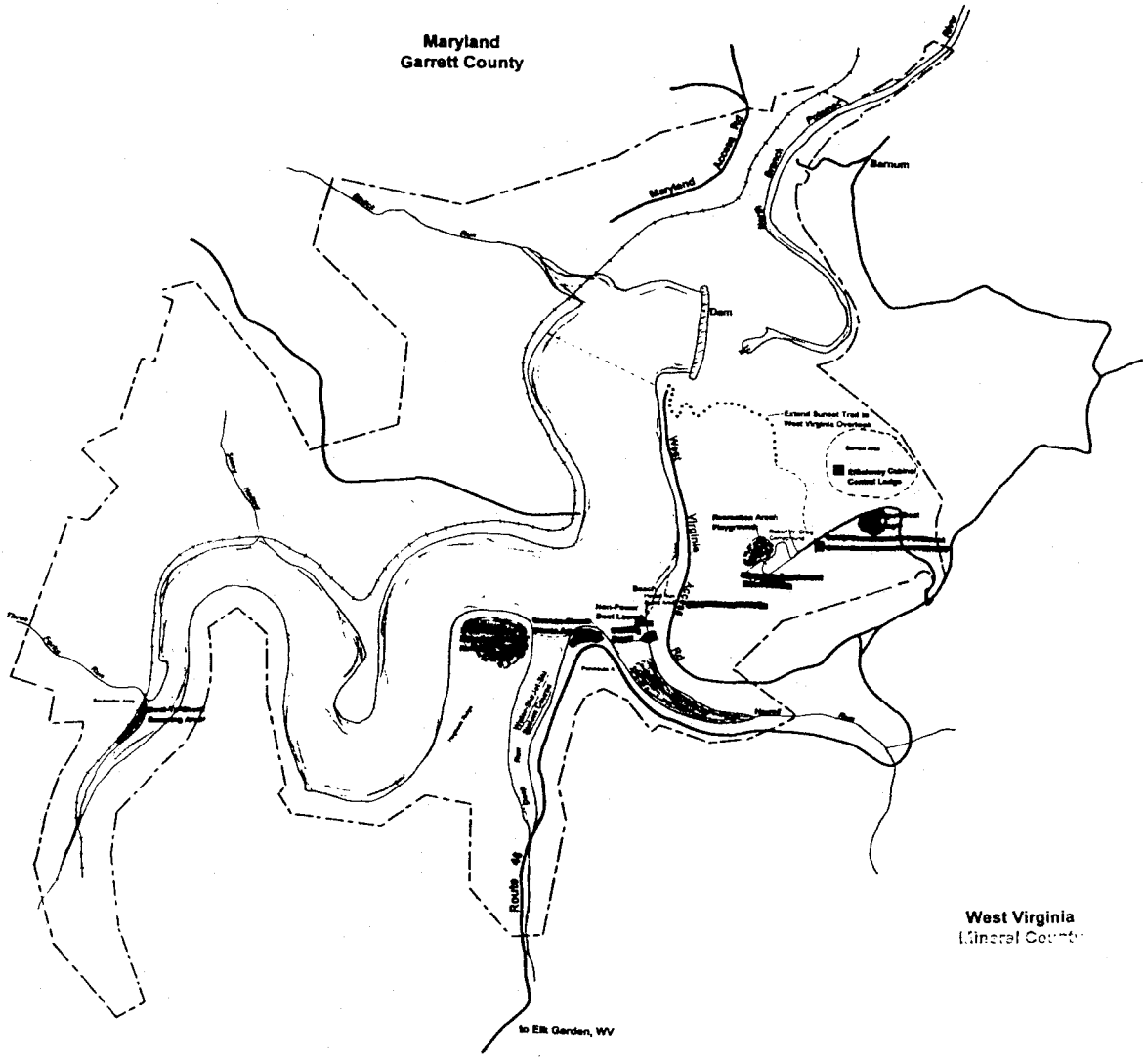
- Shooting/Archery Range

Backwater Area

- Boat-To-Shore Camping Area

Miscellaneous

- Placement of fish attractors and fish habitat structures

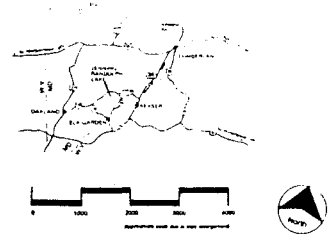


Alternative Number 4

Legend

- Boundary
- Existing Road
- Existing Trail
- Proposed Trail
- Non-Power Boat Launch
- Fishing Pier
- Camp Store
- Cabins
- No Wake Zone
- Upgrade Existing Facilities
- Developed Areas
- Camper/Boat Storage
- Recreation Area/Playground
- Boat-to-Shore Picnic Area
- Boat-to-Shore Camping
- Beach/Swim Area
- Shooting/Archery Range
- Water Ski/Jet Ski Area

Key Map



Jennings Randolph Lake Master Plan

1997 update

Corps of Engineers
Baltimore District

Jennings Randolph Lake Master Plan Update

Preference Form

Thank you for attending the Jennings Randolph Master Plan open house and taking time to review and discuss the alternative recreation facilities with the Corps of Engineers' staff. This Preference Form is broken into three sections. Sections 1 asks you to select and rank the recreation facilities from Alternatives 1-4. Section 2 asks you to choose your top 5 facilities, and Section 3 asks you to answer questions related to your choices in Section 2.

Section 1

This section contains tables for each of the Jennings Randolph Lake recreation areas (i.e. Howell Run Boat Launch, Maryland Boat Launch). Please rank the facilities listed in each table in order of importance to you; number 1 being the most important. Please note that some of the recreation areas were combined with similar areas.

Your Ranking	Barnum/Downstream
	Rustic cabins in Barnum White Water Area (Alt 1)
	Trail with canoe access points, foot bridges to cross the river, parking area and 2-recreation areas (Alt 2)

Your Ranking	Borrow Area
	18-hole par 4 Golf Course and Club House with a pro-shop, snack concession, offices, cart storage, locker rooms, and maintenance area (Alt 2)
	Group Camp Area (tent platforms, fire rings, outdoor seating) (Alt 3)
	Extend Sunset Trail to Visitor Center (Alt 3)
	Efficiency Cabins and a central Lodge (Alt 4)

Your Ranking	Robert W. Craig Campground
	Convert the Backloop vault toilets to flush toilets, provide potable water and showers (Alt 1)
	Swimming pool with bathhouse (Alt 2)
	Recreation Center (Alt 2)
	Ball Courts (basketball, tennis, volleyball) (Alt 2)
	Enlarge bathhouse (Alt 2)
	Wading pool (Alt 2)
	Camper/boat storage (Alt 4)
	Camp store with laundry facilities, game room, and equipment rentals (Alt 4)
	New Playground especially designed for small children in backloop (Alt 4)
	Horseshoe Pits, Volleyball Courts, Tennis Courts, Basketball Courts, and a Miniature Golf course (Alt 4)

Your Ranking	Maryland Boat Launch
	Fishing Pier (Alt 1)
	Cabins on the hill overlooking the boat launch (Alt 2)
	Campground on the hill overlooking the Maryland boat launch (Alt 3)
	Medium-sized Marina with fuel pumps (alternate location) (Alt 2)

Your Ranking	Howell Run Picnic Area
	Provide potable water (Alt 1)
	Enlarge one picnic shelter (Alt 1)
	Access to the lake shore for fishing (Alt 1)
	Upgrade restrooms from vault toilets to flush toilets and provide potable water (Alt 2)
	One additional picnic shelter (Alt 2)
	Fishing pier (Alt 2 and 4)
	Beach/Swimming area (alternate location) (Alt 2 and 4)
	Trail from the picnic area along the water's edge to the West Virginia Overlook with fishing access points (Alt 3)
	Non-power Boat Launch (Alt 4)
	Enhancements to the picnic area: a telephone or call box, potable water, flush toilets (Alt 4)

Your Ranking	Howell Run Boat Launch
	Upgrade vault toilets (Alt 1)
	Overhead lights (Alt 1)
	Upgrade the recreation area with potable water, overhead lights, telephone or call box, Clevis Multrium toilets (Alt 3)
	Trail from Boat Launch to Howell Run Picnic Area (Alt 3)

Your Ranking	Lake Shore Development
	Picnic areas along Route 46 (Alt 3)
	Boat launch for non-power boats and Picnic Area (Alt 3)
	Canoe trail along the West Virginia Shore (Alt 3)
	Water-Ski/Jet-Ski Slalom Course (Alt 4)
	Boat-to-Shore Picnic Area and floating pier (Alt 4)
	Boat-to-Shore Camping area and boat mooring (Alt 3)
	Beach/Swimming area (Alt 3)

Your Ranking	Hogback Ridge
	Lodge/Conference Center and Cabins (Alt 2)
	Medium-sized Marina (alternate location) (Alt 2)
	Beach/Swimming area (alternate location) (Alt 2)
	Family Campground (Alt 2)
	Water Taxi to transport visitors from the recreation areas (Alt 2)
	Boat-to-Shore Picnic Area and small floating pier/mooring area (Alt 3)
	Observation tower to serve as an interpretation center (Alt 3)
	Equestrian trails and parking area for cars/trucks and trailers (Alt 3)
	Shooting/Archery Range (Alt 4)

Section 2

Please choose the top five (5) features (out of all the alternatives) that you would like to see at Jennings Randolph Lake. List the recreation area and feature in the table, list the alternative plan number, and include written comments (see example).

Your Preferences

Feature	*Alternative Number*	*Comments*

Next, please choose the top five (5) features that you would <u>NOT</u> like to see at the Jennings Randolph Lake Project. List the recreation area and feature in the table, add the alternative plan number, and include written comments.

Your Preferences

Feature	*Alternative Number*	*Comments*

Section 3

Please answer the following questions based on your answers in Section 2.

1. Would you be willing to pay additional fees to use these facilities? (circle one)

Yes No

2. Would you prefer to pay one fee (day use/entrance fee) to use all the recreation facilities at Jennings Randolph Lake /OR/ would you prefer to pay individual facility fees /OR/ would you prefer a combination both? (circle one)

Entrance Fee Facility Fee Combination

3. How would you propose the Corps of Engineers offset expenses for construction and operation of new or upgraded facilities? (please check answers that apply)

_____ day use/entrance fee
_____ increased taxes
_____ individual facility fee
_____ concessionaire/private development
_____ other, please specify _____

General Questions:

1. Are there any facilities not listed in the alternatives that you would like to see constructed at Jennings Randolph Lake? _____

2. How did you hear about this open house? _____

3. Is there a current practice or policy at Jennings Randolph Lake that you would like to see changed? If yes, what is it and what are your suggestions for change?

Jennings Randolph Lake Master Plan Update

Results of the Preference Survey from the 15 April 1997 Public Open House Keyser, West Virginia

This is a summary of the number of votes cast for specific recreation facilities by recreation area. The original Preference Sheets are on file at the Corps of Engineers' Baltimore District Office. A copy of the blank survey is attached at the end of the results summary.

Rankings 1-3			Overall		Barnum/Downstream
1	2	3	Yes	No	
7	5	0	1	0	Rustic cabins in Barnum White Water Area (Alt 1)
6	6	0	2	0	Trail with canoe access points, foot bridges to cross the river, parking area and 2-recreation areas (Alt 2)

Rankings 1-3			Overall		Borrow Area
1	2	3	Yes	No	
4	2	2	4	3	18-hole par 4 Golf Course and Club House with a pro-shop, snack concession, offices, cart storage, locker rooms, and maintenance area (Alt 2)
1	4	6	0	0	Group Camp Area (tent platforms, fire rings, outdoor seating) (Alt 3)
1	2	3	1	0	Extend Sunset Trail to Visitor Center (Alt 3)
7	5	0	3	0	Efficiency Cabins and a central Lodge (Alt 4)

Rankings 1-3			Overall		Robert W. Craig Campground
1	2	3	Yes	No	
3	1	1	0	0	Convert the Backloop vault toilets to flush toilets, provide potable water and showers (Alt 1)
7	2	0	2	3	Swimming pool with bathhouse (Alt 2)
2	4	2	0	1	Recreation Center (Alt 2)
1	0	0	0	0	Ball Courts (basketball, tennis, volleyball) (Alt 2)
1	0	1	0	0	Enlarge bathhouse (Alt 2)
1	0	1	0	0	Wading pool (Alt 2)
1	0	2	2	0	Camper/boat storage (Alt 4)
1	4	5	4	0	Camp store with laundry facilities, game room, and equipment rentals (Alt 4)
1	0	0	0	0	New Playground especially designed for small children in backloop (Alt 4)
0	2	1	0	1	Horseshoe Pits, Volleyball Courts, Tennis Courts, Basketball Courts, and a Miniature Golf course (Alt 4)

Rankings 1-3			Overall		Maryland Boat Launch
1	2	3	Yes	No	
1	5	1	1	0	Fishing Pier (Alt 1)
3	2	2	0	0	Cabins on the hill overlooking the boat launch (Alt 2)
2	3	5	0	0	Campground on the hill overlooking the Maryland boat launch (Alt 3)
5	0	3	1	0	Medium-sized Marina with fuel pumps (alternate location) (Alt 2)

Rankings 1-3			Overall		Howell Run Picnic Area
1	2	3	Yes	No	
0	0	0	0	0	Provide potable water (Alt 1)
2	1	2	0	0	Enlarge one picnic shelter (Alt 1)
2	2	0	0	0	Access to the lake shore for fishing (Alt 1)
1	1	3	0	0	Upgrade restrooms from vault toilets to flush toilets and provide potable water (Alt 2)
1	3	3	0	0	One additional picnic shelter (Alt 2)
1	3	0	1	0	Fishing pier (Alt 2 and 4)
7	1	1	3	0	Beach/Swimming area (alternate location) (Alt 2 and 4)
3	0	1	1	0	Trail from the picnic area along the water's edge to the West Virginia Overlook with fishing access points (Alt 3)
0	0	1	1	0	Non-power Boat Launch (Alt 4)
1	4	1	2	0	Enhancements to the picnic area: a telephone or call box, potable water, flush toilets (Alt 4)

Rankings 1-3			Overall		Howell Run Boat Launch
1	2	3	Yes	No	
0	4	4	0	0	Upgrade vault toilets (Alt 1)
2	2	3	0	0	Overhead lights (Alt 1)
6	4	1	2	0	Upgrade the recreation area with potable water, overhead lights, telephone or call box, Clevis Multrium toilets (Alt 3) *
4	2	1	0	0	Trail from Boat Launch to Howell Run Picnic Area (Alt 3)
			1		Marina at Boat Launch (write in)

* **Call box and lights stressed** on survey forms

Rankings 1-3			Overall		Lake Shore Development
1	2	3	Yes	No	
2	0	0	0	0	Picnic areas along Route 46 (Alt 3)
1	1	1	0	0	Boat launch for non-power boats and Picnic Area (Alt 3)
1	3	0	0	0	Canoe trail along the West Virginia Shore (Alt 3)
0	0	1	0	3	Water-Ski/Jet-Ski Slalom Course (Alt 4)
1	6	4	0	0	Boat-to-Shore Picnic Area and floating pier (Alt 4)
6	2	0	2	0	Boat-to-Shore Camping area and boat mooring (Alt 3)
2	2	4	0	0	Beach/Swimming area (Alt 3)

Rankings 1-3			Overall		Hogback Ridge
1	2	3	Yes	No	
11	0	0	11	1	Lodge/Conference Center and Cabins (Alt 2)
1	5	2	8	0	Medium-sized Marina (alternate location) (Alt 2)
1	2	5	8	0	Beach/Swimming area (alternate location) (Alt 2)
2	2	0	3	0	Family Campground (Alt 2)
0	0	3	0	2	Water Taxi to transport visitors from the recreation areas (Alt 2)
0	2	1	0	0	Boat-to-Shore Picnic Area and small floating pier/mooring area (Alt 3)
0	1	0	0	0	Observation tower to serve as an interpretation center (Alt 3)
0	1	1	1	1	Equestrian trails and parking area for cars/trucks and trailers (Alt 3)
0	2	0	0	6	Shooting/Archery Range (Alt 4)

Answers to Section 3 of the Preference Survey

Please answer the following questions based on your answers in Section 2.

1. Would you be willing to pay additional fees to use these facilities? (circle one)

__11__ Yes __1__ No

2. Would you prefer to pay one fee (day use/entrance fee) to use all the recreation facilities at Jennings Randolph Lake /OR/ would you prefer to pay individual facility fees /OR/ would you prefer a combination both? (circle one)

__3__ Entrance Fee __3__ Facility Fee __6__ Combination

3. How would you propose the Corps of Engineers offset expenses for construction and operation of new or upgraded facilities? (please check answers that apply)

__7__ day use/entrance fee
__1__ increased taxes
__7__ individual facility fee
__8__ concessionaire/private development
__2__ other, please specify a. "possibly WV may be able to chip in for some park areas
b. "maybe WV can help pay for some of this from STATE funds"
c. "Should be done by private source. Lease land & develop with developer obtaining profit"

General Questions:

1. Are there any facilities not listed in the alternatives that you would like to see constructed at Jennings Randolph Lake?
a. Restaurant at Lodge
b. "Trail encircling the entire Lake, both MD and WV side, have the trail connect with the campground, office complex, etc"
c. Amphitheater - outdoor concerts
d. Snow Skiing/Ski Lodge
e. Home/Private Development around lake
f. Water slides
g. "Need more development on WV side - Possibly develop access road from Elk Garden down to Hogback Ridge - there is an old road over grown there now"
h. Expand Whitewater Season
i. "Any further development at lake should be on the lake itself, not at Barnum where we will have limited tourist value."

2. How did you hear about this open house?
a. Newspaper/invitation
b. Mineral Co. CUB
c. Word of Mouth
d. Flyer
e. Personal call

3. Is there a current practice or policy at Jennings Randolph Lake that you would like to see changed? If yes, what is it and what are your suggestions for change?
a. "Just keep us informed."
b. "Private citizens should have right, by lease agreement, to have private cabins and docks. This is done at other Army Corps lakes."
c. "More advertisement about 4 season recreation."
d. "Open lake around 1st of March because of good fishing."

MARYLAND HISTORICAL TRUST

Office of Preservation Services

William Donald Schaefer
Governor

Jacqueline H. Rogers
Secretary, DHCD

January 6, 1992

Mr. James F. Johnson, Chief
Planning Division
Baltimore District
U.S. Army Corps of Engineers
P. O. Box 1715
Baltimore, Maryland 21203-1715

Re: Phase I Cultural Resource Investigation, Jennings Randolph Lake Reallocation Study
Garrett County, Maryland and Mineral County, West Virginia

Dear Mr. Johnson:

Thank you for sending us a draft copy of the above-referenced report, prepared by the Baltimore District, for our review. The following comments concern general aspects of the document, as well as historic properties in Maryland.

The report contains a brief discussion of the investigations' methods and results. It largely meets the standards outlined in the "Guidelines for Archeological Investigations in Maryland" (McNamara 1981); and it is well illustrated with color photographs. In our opinion, the archeological work was sufficient to identify the full range of archeological properties in the Maryland areas of potential effects. The survey discovered no archeological resources in Maryland; therefore, no further archeological investigations are warranted in Maryland for the undertaking.

According to our records, the project area does not contain any historic standing structures since they were destroyed when the lake was built. Further architectural investigation is not warranted.

We have a few minor comments on the draft, and suggested revisions should be incorporated into the final report:

1. The Introduction should briefly describe the goals and objectives of "Phase I cultural resource investigation."

Maryland

2. The word "effected" should be replaced by "affected" in both paragraphs of the section on Land Use (pages 1 and 2).

3. Figure 1 should include the label of "Jennings Randolph Lake" to supplement the one for Bloomington Reservoir.

4. At a minimum, the Previous Studies section should define the historic contexts for the Middle Archaic and Woodland period and for the historic periods associated with the communities of Shaw and Barnum. References to The Maryland Comprehensive Historic Preservation Plan (Weissman 1986) would be most welcome.

5. A new appendix should identify the principal investigator and provide his resume in sufficient detail to permit independent determination of professional qualifications as published in 36 CFR Part 61.

6. A completed National Archeological Database Reports Recording Form should accompany the final report.

7. Please include in the Appendix a copy of the referenced 1974 letter from Ronald Andrews.

We look forward to receiving a copy of the final report, when it is available. If you have any questions or require further information, please contact Ms. Lauren Bowlin (for structures) or Dr. Gary Shaffer (for archeology) at 410-514-7600.

Sincerely,

Elizabeth J. Cole

Elizabeth J. Cole
Administrator
Archeological Services

EJC:GDS:LLB
9100095

cc: Dr. David Guldenzopf
Mr. William M. Drennen, Jr.

WEST VIRGINIA DIVISION OF
CULTURE AND HISTORY

November 25, 1991

Mr. James F. Johnson
Chief, Planning Division
Department of the Army
Baltimore District, Corps of Engineers
P.O. Box 1715
Baltimore, Maryland 21203-1715

RE: Jennings Randolph Lake Reallocation Project
FR#: 89-1024-Multi

Dear Mr. Johnson:

We have received the Phase I archaeological survey report conducted for the above referenced project. The report satisfactorily addresses our concerns about the significant resources and we concur with its conclusions that the project will not affect National Register eligible archaeological sites.

We have determined, therefore, that no known historical, architectural, or archaeological sites listed on or eligible for inclusion in the National Register of Historic Places will be affected by the proposed project.

We appreciate the opportunity to be of service. If you have any questions regarding our comments or the Section 106 process, please call Eric Voigt, Staff Archaeologist.

Sincerely,

William G. Farrar, Deputy State
Historic Preservation Officer

WGF:lso

cc: Chuck Niquette

THE CULTURAL CENTER • CAPITOL COMPLEX • CHARLESTON, WEST VIRGINIA 25305 • 304 348-0220
FAX 304 348-2779 • TDD 304 348-0220

United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
P.O. Box 1278
Elkins, West Virginia, 26241

September 17, 1996

Col. Randall R. Inouye, District Engineer
U.S. Army Corps of Engineers - Baltimore District
P.O. Box 1715
Baltimore, MD 21203-1715

Dear Col. Inouye:

The U.S. Fish and Wildlife Service has reviewed the Notice of Intent to Prepare a Draft Environmental Impact Statement for the Proposed Master Plan Update at Jennings Randolph Lake, Maryland and West Virginia dated July 25, 1996. The master planning process provides direction for project development and use and stewardship of project resources through the protection, conservation, and enhancement of natural, cultural, and constructed resources. The master plan will determine the types and quantities of development the Lake can support environmentally and economically. These comments are submitted as technical assistance in accordance with the provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.); they do not constitute the report of the Secretary of Interior in accordance with Section 2(b) of the Act.

The Federally threatened bald eagle, Haliaeetus leucocephalus, is found within the Jennings Randolph Lake project area. A pair of bald eagles established a nest on the southern end of the lake in 1993. Two eaglets fledged each year in 1993 and 1994 and three eaglets fledged in 1995. In early 1996 an ice storm destroyed the nest and the pair did not rebuild. However, it is expected that the pair will reestablish a nest in the area of the lake. Every effort to encourage nesting at the lake and subsequent protection of the nest site by an adequate buffer zone is strongly recommended. In accordance with Section 7(a)(2) of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq) (ESA), Federal agencies are required to ensure that any actions they carry out, fund, or authorize are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of the critical habitat of such species. If the Federal agency determines that its proposed action may affect a listed species or critical habitat, it must consult with the Service.

Thank you for the opportunity to comment.

Sincerely,

Christopher M. Clower
Supervisor

Comments:

Our local economy is poor to non-existing. If we had been allowed to develop Jennings Lake, it could improve the economy in the entire state. I have seen the Army Corp lakes in Pennsylvania and they have privately owned or leased boat docks, gasoline dock sales, groceries, privately owned cabins, etc. This is due to the fact they are out of the Pittsburg U.S. Army Corp. and not the Baltimore region. We have no swimming, overnight private docks, rental cabins, motels, or rental lodges. Until the Federal Law is changed to allow for development as out of the Pittsburg region, nothing will change. We are now starting a drive to change this, with our congressmen. We should have the same rights as the lakes out of the Pittsburg U.S. Army Corps region office.

Please submit any comments you have on the Jennings Randolph Lake Master Plan to the address on the back of this card, or hand the card to a campground attendent or a Ranger.

Comments: WOULD like To See Rec. improvements. IN ADDITION, NOT IN EXPANSION OF EXISTING, MARINA IS Definitely Justified + NEEDED. More PROMOTION, ROAD Signs, etc. CABINS, LODGE, Etc. VERY INTERESTED IN ECONOMIC DEV. AROUND LAKE.

Comments: West Virginia Boat Ramp needs improvements - They need a boat dock. It's difficult to launch a lake boat - there's nowhere to dock.

Comments: I am interested with the concerns and safety of the North Branch of the Potomac River I have lived my intire 80yr here i would like to see more interest from the Dept of the Army Corp like a signal for Releases a couple walk Bridges across the River

Cumberland, Maryland, Friday Dec. 3, 1993

Governors OK joint North Branch project

From Associated Press
and Times-News staff reports

CHARLESTON, W.Va. — Gov. Gaston Caperton and Maryland Gov. William Donald Schaefer on Thursday approved a joint effort to improve water quality and recreation on the North Branch of the Potomac River.

An agreement signed by the governors forms a task force to oversee the project, said Phyllis Cole of Petersburg, chairwoman of the Interstate Commission on the Potomac River Basin, which will oversee the panel.

The North Branch forms the border between West Virginia and Maryland for about 60 miles.

Years of acid mine drainage and industrial and residential pollution dirtied the waters and killed off trout, members of the Rockville, Md.-based basin commission said.

"The river was just a total disaster...people would have been afraid to stick a toe in it."
— Herb Sachs, Interstate Commission

"This tributary of the Potomac had been written off as unreclaimable," Ms. Cole said.

"The river was just a total disaster," said Herb Sachs of Annapolis, Md., the commission's executive director. He said that until recent years, "people would have been afraid to stick a toe in it."

But the construction of Jennings Randolph Dam and a nearby trout hatchery above Piedmont, W.Va., and improved waste treatment and pollution control by both states has helped restore trout along 10 miles of the river south of the dam, Ms. Cole pointed out.

"It's a place of real exceptional beauty" with "far-reaching recreational potential," Caperton said. "It is my hope we can breathe new life into this stream."

Ms. Cole and Mr. Sachs said the task force will aim at restoring the North Branch as a major recreation area.

"We're anticipating a championship trout stream," Cole said. "It's not just fish. The fish are just the thing we're going on to get everyone's attention," Sachs said.

Once task force members are appointed, the panel will set specific plans and begin work, Cole said.

The agreement comes on the heels of U.S. Congressman Alan Mollohan's efforts to obtain federal funding for a study of recreational potential at Jennings Randolph Lake. The funding was approved last month and the study is to be conducted during 1994.

At the local and regional levels efforts have continued for the past two years to improve and promote existing recreational opportunities through cooperation between the U.S. Army Corps of Engineers which owns and operates the lake facility and local officials in government, parks and recreation and the Maryland and West Virginia Departments of Natural Resources.

Discussions among the officials have targeted the potential for a bi-state park at the lake in addition to other private and-or quasi-governmental development.

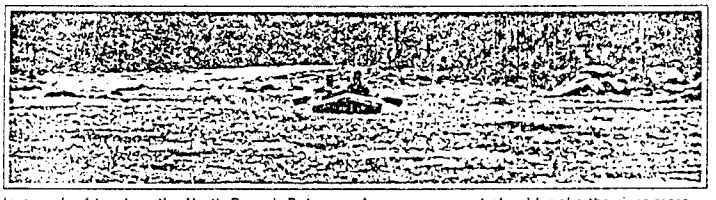
Existing recreation at the lake and along the North Branch of the Potomac River includes, in addition to fishing, whitewater rafting, lake boating, and camping.

The West Virginia Department of Natural Resources earlier this year acquired acreage below the damsite that is intended to be protected as a wilderness recreational site.

Potomac Basin
REPORTER

Vol. 49, No. 9 Interstate Commission on the Potomac River Basin Nov. - Dec. 1993

Cooperative Agreement on North Branch Potomac Signed



In search of trout on the North Branch Potomac. A new agreement should make the river more popular, accessible.

The states of Maryland and West Virginia and ICPRB have agreed to establish a cooperative program to improve water quality and restore biological life to a section of the North Branch Potomac River.

In the initial phase of work, the states, ICPRB, the U.S. Army Corps of Engineers (ACE) and local governments will concentrate on a 10-mile stretch of the river below the Jennings Randolph Reservoir that will include development of a trout fishery and other recreational activities.

The ICPRB has worked for several years toward integrated cooperative revitalization and management of the river, a resource that has been one of the most polluted in the basin. The North Branch Potomac has long suffered from environmental impacts, but by far the greatest problems have come from the legacy of coal mining in the region. Acidic runoff from mostly abandoned shaft mines continues to keep many miles of the region's streams devoid of life.

The area covered by the agreement includes the river's headwater tributaries and the North Branch to its confluence with the Savage River. The first phase focuses on the river segment that has most dramatically improved in water quality, due in part to the construction of the dam. Operated by ACE, the Jennings Randolph Reservoir has exceeded all expectations in mitigating the effects of mining upstream. Built primarily for water supply purposes and flood control, the tower from which water is withdrawn from the lake can selectively mix water from different depths. Because acid collected in the reservoir stratifies, the structure can provide the river downstream with water of a more-uniform pH. Previously, heavy storms would send slugs of highly acidified water down the river, killing not only fish, but the aquatic insect communities on which they fed. In the 12 years since the reservoir filled, the river segment has steadily improved. The river was stocked as a put and take trout fishery by both states. Later, the Maryland Department of Natural Resources began to "grow out" fingerling trout in net enclosures floating in the tailrace of the dam. In the last few years, stocked trout have begun to reproduce on their own in the river. "Long-time residents who remember how bad the river was probably wouldn't have believed that fish would be back in the North Branch, much less seeing trout reproduce in it," noted ICPRB Associate Director Jim Cummins.

The great improvement in this stretch of the river afforded by the reservoir and other state and federal efforts to mitigate mining impacts will lend a needed boost to the area's flagging economy with tourism dollars. Careful work on building the North Branch into a world-class trout fishery, including preservation of the river's beautiful shoreline scenery and promoting construction of necessary infrastructure to serve anglers and other recreationists is the next step. The project is seen as a demonstration of improving a regional economy through coordinated water quality and other environmental improvements. Other recreation, including hunting, whitewater boating, and hiking also will be included in the plans.

As agreed, the signatories are forming a task force to create and oversee a program for the area that will work not only on the recreational and scenic goals, but also resolve issues related to law enforcement and other interjurisdictional issues. A work plan will be produced to guide water quality improvements, restoration of biological integrity, habitat improvement, maintain the scenic beauty of the region, and educate and involve the area's residents.

The December signing of the North Branch agreement by the two governors and ICPRB was the result of two years of work. West Virginia Gov. Gaston Caperton stressed his hope that the restoration effort would result in increased recreational and economic opportunities. Maryland Gov. William Donald Schaefer noted that the achievements already accomplished on the river speak well for the project's long-term outlook, and hailed the work of the two states and the Conservation Fund toward protecting sensitive areas.

The project furthers ICPRB's mission of coordination with the basin states in enhancing water quality on a watershed basis through involvement with both government and the public. The Commission's executive director, Herb Sachs, will serve as chairman of the task force.

The Weekender Edition, News-Tribune, Mountain Echo, December 4, 1993

Maryland, W.Va. to cooperate

CHARLESTON, W.Va. (AP) — The rebirth of the befouled North Branch of the Potomac River will be helped along by a joint West Virginia-Maryland effort to improve water quality and recreation, officials say.

The North Branch forms the border between West Virginia and Maryland for about 60 miles. Years of acid mine drainage and industrial and residential pollution dirtied the waters and killed off trout.

"This tributary of the Potomac had been written off as unreclaimable," said Phyllis Cole of Petersburg, chairwoman of the Rockville, Md.-based Interstate Commission on the Potomac River Basin.

"The river was just a total disaster," said Herb Sachs of Annapolis, Md., the commission's executive director. He said in recent years, "people would have been afraid to stick a toe in it."

But the construction of the Jennings Randolph Dam and a nearby trout hatchery near Piedmont as well as improved waste treatment and pollution control by both states has helped restore trout along 10 miles of the river south of the dam, Cole said.

Page 8-The Herald, Tuesday, April 12, 1994

Governor Signs Jennings Randolph Lake Bill. . .

Governor Gaston Caperton recently signed House Bill 4009, allowing West Virginia and Maryland to provide joint management of the Jennings Randolph Lake's natural resources.

The bill named in honor of former West Virginia Senator Jennings Randolph, who was instrumental in the creation of the lake and many other water resource projects across the nation.

Pictured left to right: Dr. Robert Florian, Oce Smith, Bob Miles, Delegate Jim Nicol, Delegate Harold Michael, Governor Gaston Caperton, Delegate Joe Martin, Senator Mike Ross, Senator David Miller, Senator Walt Helmick, DNR Director Chuck Felton, Colonel Richard Hall.

Not present but active participants in the legislation include Delegate Allen Evans and Delegate Jerry Mezzatesta.

Jennings Randolph Rec Use Areas Open

The U. S. Army Corps of Engineers at Jennings Randolph Lake has announced the following day use areas for the 1994 recreation season are now open.

The Maryland Overlook is open for day use activities. The overlook, which has one of the most scenic views in Western Maryland, also has a half-mile long bird attractor trail complete with waterfall and pond. The overlook is accessible from Maryland Route #135 by either Walnut Bottom Road or Chestnut Grove Road.

Also, opening is the West Virginia Overlook, home of the "Waffle Rock," a rare geological formation. The Howell Run Boat Launch which has parking space for 60 car/trailers and a two lane boat ramp is also open. The two areas are accessible from West Virginia Route #46, five miles north of Elk Garden.

The campground and picnic area will open April 29.

For more information call (301)

Randolph Lake Compact Proposed By Sen. Sarbanes

U.S. Senator Paul Sarbanes introduced legislation Tuesday to permit Maryland and West Virginia to enter into a join agreement for Jennings Randolph Lake. The lake is on the North Branch of the Potomac River in Garrett County and in Mineral County, W.Va. The lake is growing in popularity as a recreational site, and better management of its resources is needed, Sarbanes said.

The lake was created with the construction of a dam across the river in 1982 to enhance the water quality of the Potomac, reduce flood damage, improve the water supply, and increase opportunities for recreation. However, the creation of the lake removed the natural boundary between West Virginia and Maryland. The meandering nature of the former river and the depth of the lake have made it impossible to re-establish the precise location of the boundary. As a consequence, according to Senator Sarbanes, "enforcement of the natural resources and boating laws and regulations have been tentative at best, and at worst, nonexistent. As recreational uses of the lake continue to increase, it is anticipated that enforcement problems will become increasingly difficult."

The Sarbanes legislation will provide the states of Maryland and West Virginia with concurrent jurisdiction over the project area to enable them to jointly enforce natural resource boating laws and regulations. Congressional approval of such an agreement between two states is required by the Constitution. The Sarbanes measure is co-sponsored by Maryland Senator Barbara Mikulski and West Virginia Senators Robert Byrd and Jay Rockefeller.

"The lake and surrounding area extraordinarily beautiful and include some of the most picturesque are countryside in the nation. The lake and the North Branch of the Potomac River below the dam support a recreational trout fishery that is one of the best in America. Other recreational opportunities including boating, downstream whitewater rafting, hiking, and picnicking are drawing increasing numbers of visitors to the lake. This is a natural resource for us to treasure - and to preserve," Sarbanes said.

Sarbanes says he has taken a number of steps in recent years to preserve the lake while making its beauty more accessible for the people of Maryland. He has worked with the governments of both states and the Army Corps of Engineers to improve the access road on the Maryland side of the lake, he has addressed acid mine drainage on the North Branch of the Potomac, and he has had language added to appropriations legislation to have the Corps of Engineers develop a new management plan for the lake.

Cumberland, Maryland, Friday, July 1, 1994

Jennings Randolph Lake pact in the works

KITZMILLER — Legislation allowing for a joint agreement between Maryland and West Virginia that would allow for better management of Jennings Randolph Lake was introduced this week by U.S. Senator Paul Sarbanes.

The measure is co-sponsored by U.S. Senator Barbara Mikulski and West Virginia Senators Robert Byrd and Jay Rockefeller.

Located on the north branch of the Potomac River in Garrett County, Maryland and Mineral County, West Virginia, the lake is growing in popularity as a recreational site and better managements of its resources is needed.

To enhance the water quality of the Potomac, improve water supply and increase recreational opportunities, the lake was created in 1982 with a dam across the river.

Unfortunately, the creation of the lake removed the natural boundary between the two states. The meandering nature of the former river and the depth of the lake have made it impossible to re-establish the precise location of the boundary.

The Sarbanes legislation will provide the two states with concurrent jurisdiction over the project area to enable them to jointly enforce natural resource boating laws and regulations.

The agreement would also cover recreation in the lake area.

Congressional approval of the agreement is required by the Constitution.

SATURDAY
JUNE 17, 1995
News-Tribune & Echo

Potomac River Basin potential being discussed in Md., W.Va.

By PATRICIA HASTINGS
Staff Writer
Daily News-Tribune

Sen. Paul Sarbannes (D-Md.) sees the banks of the Potomac River in the western part of his state as the perfect place for picnicking and recreational opportunities such as fishing, boating, whitewater rafting, and hiking.

He says, "The Potomac River and the areas surrounding it along the Maryland-West Virginia border include some of the most picturesque countryside in the nation. The region is extraordinarily rich in scenic beauty and abounds in recreation...This is a natural resource for all of us to treasure—and to preserve."

Sarbannes' comments reflect the ideas of a growing number of people on both sides of the border who are beginning to look toward the Potomac River Basin for future recreational development.

The 4,500-acres of land at Jennings Randolph Lake, which once contained the town of Shaw, is one area of the Potomac being groomed for tourism and recreation.

Russ Newman, project manager at the lake, says this summer alone, 75,000 visitors are expected between Memorial Day and Labor Day.

A Reconnaisance Study being conducted by the U.S. Army Corps of Engineers notes that a recreation center/convenience store and concession stand should be a part of any plans to transform Jennings Randolph Lake into a mecca for tourists.

"It should be designed to have a similar architectural style to the proposed cabins and washhouse," planners wrote of the plans for a 9,000-square foot building which combines the recreation center and stores.

In January of this year, Corps of Engineers spokesmen were putting forth plans for 17 cabins, with amenities such as air conditioning and electric. Golf enthusiasts may smile when they hear a golf course could go in near the high timber camping area if private funds become available.

Newman, when asked about the potential of the area, said, "There's no question about it, if those plans materialize, it will be a terrific boost in all respects, economically and in every way."

Scott Rotruck, a member of the Mineral County Development Authority as well as the North Branch Task Force, says, "Elk Garden should be the key beneficiary of improvements at Jennings Randolph Lake since the town is five miles from the federal area."

George Shoemaker, Allegany County's representative to the North Branch Task Force, says, "The key element will be water quality. The purpose of the task force is to enhance opportunities, including recreational ones, that in the long term help the four counties economically." The three counties included with Allegany are Garrett in Maryland, and Mineral and Grant in West Virginia.

Some North Branch studies include two Pennsylvania counties in their scope as well.

"We want to entice outdoorsmen to trout fish here, perhaps spend a couple of days hiking," Shoemaker said.

In Shoemaker's eyes, the fishing improves as the water quality increases. "The chance to hike, hunt, raft and boat will be better too," he adds.

July 15, 1995

News-Tribune & Echo

Mollohan given House okay for state water project funds

WASHINGTON, D.C. — First District Congressman Alan B. Mollohan has won House approval to provide more than $2 million in federal funding for several water projects in northern West Virginia.

"I've targeted this funding to help solve real problems and pursue new opportunities along our waterways," said Mollohan, D-W.Va. "We would be able to focus on a wide range of issues important to our communities — everything from flood prevention to erosion control to environmental remediation to recreational and economic development."

Mollohan, who serves on the House Appropriations Committee, placed the money in the appropriations bill that funds energy and water development initiatives across the nation. The House passed the measure Wednesday.

It includes:

- $160,000 to complete the updated master plan for public use of Jennings Randolph Lake;
- $500,000 to conduct feasibility studies of flood-control projects that would protect the Philippi and Belington areas of Barbour County;
- $600,000 to add three additional watersheds - Fords Run, Three Forks Creek and Sandy Creek - to a study aimed at improving environmental conditions in the Tygart Valley River Basin;
- $300,000 to conduct feasibility studies of waterfront development projects along the Monongahela River.

Randolph Lake development could generate millions here

By PATRICIA HASTINGS
Staff Writer
Daily News-Tribune

When recreational opportunities expand at Jennings Randolph Lake, there will be more boating docks, others grilling the evening meal near picnic tables, and most with smiles on their faces.

The initiative for Jennings Randolph Lake being backed by Congressman Allan Mollohan is two years old. With the master plan's formation requiring Fiscal Year 1996 funds, Mollohan hopes the hours of phone calls, research on the lake and Potomac River, and interviews will be paying off in increased revenue from tourism and lake use by locals within a few years.

He says his office "will play a leadership role at the appropriate time."

There's an outside chance that private development money will come into play if a conference center is built in the vicinity of the lake. Government officials often open doors for developers when such multimillion dollar projects get off the ground.

Regional economic benefits could be as high as $8.8 million if the Jennings Randolph Lake concept flies. There's already the Robert W. Craig Campground, a scenic overlook, and a boat launch on West Virginia's side of the dam bordering two states.

Getting this close to a master plan excites Mollohan, who has viewed the panoramic site at the lake and donned a life jacket for a ride on the Potomac.

A Reconnaisance Report nearing completion by the Corps of Engineers has concentrated on a marina, picnic spots and more at the lake. The planners see the component of greenways along the Potomac River upstream and downstream from the lake as "a potential for further recreation enhancement."

Mollohan says that a $275,000 appropriation for phase two of a North Branch study is in a budget the House will see before October rolls along.

While Mineral Countian Scott Rotruck sits in on meetings with Maryland officials and wildlife experts from both states concerning the North Branch of the Potomac, Mollohan keeps abreast of the Corps' work in regards to the environment and recreation.

Mollohan is cognizant of Rotruck's work and the hand Rotruck's employer, Anker Energy, plays in cleanup efforts along the river.

A strong supporter of remining efforts, which are remedial means of cleaning up, Mollohan deals with mining officials from all over the state.

He cringes at the legacy some mine owners left—dirty water.

Releases by the dam tender at Savage River Dam are coordinated with ones at Jennings Randolph to assure good water quality or control flooding.

. . .

umberland
Times-News

Cumberland, Maryland, Friday, September 22, 1995

Senate OKs legislation for Jennings Randolph Lake pact

For the Cumberland Times-News

WASHINGTON — The U.S. Senate gave unanimous approval Thursday to legislation allowing Maryland and West Virginia to enter into a joint agreement for Jennings Randolph Lake, said U.S. Sen. Paul Sarbanes.

Sarbanes introduced the measure.

The lake is on the North Branch of the Potomac River in Garrett County, and Mineral County, W.Va.

The legislation will enable Maryland and West Virginia to jointly enforce natural resource boating laws and regulations by providing them with concurrent jurisdiction over the project area.

Better lake resource management is needed as it becomes an increasingly more popular recreational site for visitors and residents of both states, he said.

"Jennings Randolph Lake offers tremendous potential for Western Maryland. Environmentally, it is a significant part of the Potomac River basin and a critical component of our efforts to lower acid levels in the river and restore habitats for fish and other wildlife," said Sarbanes.

"Economically, it can be the focal point for growing opportunities in the areas of tourism and recreation. But we must balance environmental protection and economic progress. This compact will be a vital part of that effort."

Construction of an access road on the Maryland side of the lake and new boat docks are making the lake a more attractive destination for boating and fishing enthusiasts.

The waters below the lake are the site of a thriving trout fishery and the clear waters of the lake and the river are drawing visitors pulled to the area by its natural beauty.

Sarbanes has taken a number of steps in recent years to preserve the lake while making its beauty more accessible for the people of Maryland.

He has worked with the governments of both states and the Army Corps of Engineers to improve the access road on the Maryland side; he has addressed acid mine drainage on the North Branch of the Potomac; and he has added language to appropriations bills to have the Corps of Engineers develop a new management plan for the lake.

Jennings Randolph Lake was created with the construction of a dam across the river in 1982. This was done to enhance the water quality of the Potomac, reduce flood damage, improve the water supply and increase opportunities for recreation.

Cumberland Times-News
Saturday, September 23, 1995 8A

Editorial

Randolph lake

■ Agreement to help area reach potential

The Jennings Randolph Lake on the North Branch of the Potomac River has a better chance of reaching its potential as a top tourism and recreation spot now that the U.S. Senate has approved legislation making Maryland and West Virginia partners in regulating the area.

The man-made lake was created in 1982 for the primary purpose of improving Potomac River water quality and enhancing the area's water supply. The lake stretches into a portion of Garrett County in Maryland and Mineral County in West Virginia.

Although only a few years have passed since the huge dam was constructed, word about the lake's quality fishing and recreational appeal continues to spread. With the Maryland-West Virginia joint agreement now in place, the lake will be better managed and be able to reach its potential as a tourism and recreation area.

The legislation was sponsored by U.S. Senator Paul Sarbanes, D-Md., and enables the two states to jointly enforce natural resource boating laws and regulations by giving the jurisdictions concurrent regulating powers.

November 15, 1995

Mineral Daily News-Tribune

LOCAL/REGIONAL

$160,000 funding is approved for Jennings Randolph Lake

WASHINGTON, D.C. — The president has signed into law a funding bill which includes $160,000 set aside by Congressman Alan B. Mollohan to complete a new master plan for Jennings Randolph Lake.

The measure also contains $275,000 that Mollohan worked to obtain for environmental restoration activities on the North Branch of the Potomac River.

"I am delighted that this funding has cleared the final hurdle here in Washington and will be put to work in our communities in the coming year," said Mollohan.

The money was placed in the yearly appropriations bill which funds energy and water projects across the country. President Clinton signed the measure into law Monday.

The new work is a follow-up to the Jennings Randolph Lake study that the U.S. Army Corps of Engineers recently completed. Mollohan secured funds for that study two years ago in an effort to begin planning for recreation and economic development at the lake.

Updating the master plan for public use of the lake is "the next logical step in the process," he said.

Meanwhile, the funding for the North Branch of the Potomac will be used to examine a variety of environmental restoration activities, including improvements to fish and wildlife habitats.

Cumberland Times-News

1C Wednesday, October 18, 1995

Congress urged to endorse bi-state lake compact

For the Cumberland Times-News

WASHINGTON — First District Congressman Alan B. Mollohan, D-W. Va., has introduced legislation that calls on Congress to endorse the Jennings Randolph Lake compact signed by West Virginia and Maryland.

"This compact. this agreement, is in the best interest of all who enjoy the lake and appreciate its tremendous potential for new recreational and economic development," said Mollohan, who has worked to promote new activity in the area.

"By allowing our states to share oversight of Jennings Randolph Lake, the compact will enhance the local resources and protect those who use them. It will also help provide a stable foundation for growth by eliminating any questions about jurisdiction," he added.

Creation of the lake obliterated the boundary line between Maryland and West Virginia, raising jurisdictional issues that have severely hampered law enforcement there.

The two states, together with the U.S. Army Corps of Engineers, forged the compact to resolve those issues. In the agreement, they acknowledge joint responsibility for managing the lake's resources and enforcing laws and regulations.

Mollohan's legislation would bring the compact into compliance with the U.S. Constitution, which states that Congress must approve any agreements between states.

Introducing the measure is the latest in a series of steps Mollohan has taken to help area residents make the most of the opportunities that Jennings Randolph Lake presents.

Through his position on the House Appropriations Committee, he secured $400,000 in 1993 to begin planning for economic and recreational development, and environmental remediation, of the lake.

He has placed $160,000 in a funding measure this year to complete a new master plan for public use of the lake, and has earmarked $275,000 for a feasibility study of environmental restoration on the North Branch of the Potomac River.

Mollohan said that Congressman Roscoe G. Bartlett, R-Md., joined him in sponsoring the measure that endorses the West Virginia-Maryland compact. Companion legislation sponsored by U.S. Sens. Robert C. Byrd and Jay Rockefeller, both D-W.Va., and their Maryland colleagues is pending in the Senate.

The Piedmont Herald

The Community Newspaper of the Tri-Towns - Piedmont, WV, Westernport & Luke, MD

Piedmont, WV 26750 Tuesday, October 24, 1995

Mollohan Seeks Congressional Endorsement

WASHINGTON -- First District Congressman Alan B. Mollohan, D-WVA, has introduced legislation that calls on Congress to endorse the Jennings Randolph Lake compact signed by West Virginia and Maryland.

"This compact, this agreement, is in the best interest of all who enjoy the lake and appreciate its tremendous potential for new recreational and economic development," said Mollohan, who has worked to promote new activity in the area.

"By allowing our states to share oversight of Jennings Randolph Lake, the compact will enhance the local resources and protect those who use them. It will also help provide a stable foundation for growth by eliminating any questions about jurisdiction," he added.

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Mollohan said that Congressman Roscoe G. Bartlett, R-MD, joined him in sponsoring the measure that endorses the West Virginia-Maryland compact. Companion legislation sponsored by U. S. Sens. Robert C. Byrd and Jay Rockefeller, both D-WVA, and their Maryland colleagues is pending in the Senate.

Cumberland Times-News

Cumberland, Maryland, Monday, July 1, 1996

Laws affecting area in effect today

CHUCK BIEDKA
Times-News Staff Writer

ANNAPOLIS — A state law that goes into effect today will allow the Department of Natural Resources to enact a special law for Jennings Randolph Lake. Meanwhile action is pending in Congress for approval of the proposed interstate compact.

Most Maryland General Assembly bills become law Oct. 1, but the Jennings-Randolph measure and other local legislation are among some of the emergency and other laws that go into effect today.

The Jennings-Randolph measure will allow the DNR to develop special regulations with West Virginia authorities to allow joint enforcement on the lake, which lies within both states.

Delegate George C. Edwards' measure will go into effect at the same time that Congress is considering federal legislation to allow Maryland and West Virginia authorities to patrol the lake.

Jennings Randolph Lake is located in Garrett County, Md. and Mineral County, W.Va.

On Thursday, U.S. Sen. Paul Sarbanes, D-Md., asked a House Judiciary Subcommittee to approve the Jennings Randolph Lake Compact. The Senate has approved the compact in 1994 and 1995.

Sarbanes said the creation of the lake in 1982 removed the natural boundary between the states and it is now difficult to determine the precise boundary. The lack of an easily defined boundary has raised questions about enforcing natural resources, boating and other regulations.

He said the compact will allow Maryland and West Virginia authorities to "go into each others territory to ensure boater safety, protection for the visiting public and the area's natural resources."

Sarbanes said it is "critical" for the compact to be approved by the House soon because the boating season is under way.

Sen. Barbara Mikulski is a co-sponsor of the bill. Other area lawmakers have spoken in favor of the compact.

Sarbanes hopes the compact can be approved before the summer break in August.

Meanwhile in Maryland three other locally sponsored measures become state laws Monday.

Starting today, a non-voting student member will be added to the Garrett County Board of Education. The measure was sponsored by Sen. John Hafer, R-Garrett-Allegany.

The law also explains how the student and an alternate will be selected.

The Garrett County Association of Student Councils will propose the student and alternate and the county's elected Board of Education must approve selection procedures.

The law further details the type of meetings the student member may attend.

Another law clarifies that the Garrett County Board of Education may provide funding to the Garrett County Women's Commission. That bill was submitted by Edwards.

The black bear conservation fund will be created when Senate Bill 370 goes into effect Monday.

The non-lapsing DNR fund will receive the proceeds of selling bear stamps or decals, special gifts or contributions. The bear fund will reimburse farmers for crop and other damage done by the animals.

SB 370 was sponsored by Hafer. It is identical to a House bill sponsored by Edwards.

House Bill 1093 creates a property tax exemption for coal pollution control facilities and coal waste power projects.

Edwards sponsored the bill, which had early support from other Western Maryland lawmakers.

The law will allow a partial property tax exemption for certain certified coal pollution control facilities and power projects — using coal waste — that go into service on or after Jan. 1, 1997.

The exemption is limited to the amount of money spent for pollution control if the facility is certified and if it produces a "profitable by-product" or if such a facility is "required without regard to air and water quality standards."

The Piedmont Herald

The Community Newspaper of the Tri-Towns - Piedmont, WV, Westernport & Luke, MD

Piedmont, WV 26750 **Tuesday, July 2, 1996**

Mollohan Testifies On Randolph Lake

WASHINGTON -- A House subcommittee has approved legislation, introduced by First District Congressman Alan B. Mollohan, that would allow West Virginia and Maryland to share oversight of Jennings Randolph Lake.

Mollohan, D-WVA, testified in support of the bill Thursday before the Judiciary Committee's Subcommittee on Commercial and Administrative Law. The panel agreed to pass the measure and forward it to the full committee.

"Subcommittee approval of my bill is an important step, and I look forward to working to guide it throught be House this year," Mollohan said. "It is imperative that this bill becomes law so that our states can work together to manage the lake's considerable resources, and better guard the public's safety."

Mollohan introduced the legislation last October. it calls on Congress to endorse the Jennings Randolph Lake compact, agreed to by West Virginia and Maryland, as well as the U. S. Army Corps of Engineers.

Creating the lake obliterated state boundary lines, causing jurisdictional issues that have hindered authorities from enforcing the law. Through the compact, the two states accept joint responsibility for law enforcement and resource management.

The Constitution requires that Congress give its blessing to multistate compacts. Companion legislation sponsored by U. S. Sens. Robert C. Byrd and Jay Rockefeller, both D-WVA, and their Maryland colleagues has passed the Senate. Mollohan said that Congressman Roscoe G. Bartlett, R-MD, joined him in sponsoring the House version.

Mineral
DAILY
NEWS-TRIBUNE
Keyser, West Virginia
MONDAY
JULY 22, 1996

Federal funds being sought for Jennings Randolph Lake

WASHINGTON, D.C. — First District Congressman Alan B. Mollohan has placed in a federal spending bill the $140,000 needed to finish a two-year-long update of Jennings Randolph Lake's master plan.

"Revising this plan, which dates back to 1973, is an essential step in determining how we want to use Jennings Randolph Lake in the years to come. I am pleased that the funding I've earmarked will allow this process to move forward, because we can't afford to leave to chance the future of such an important resource. We must guide its development with careful thought," said Mollohan, D-W.Va.

In addition to obtaining funds for the master plan update, Mollohan worked in support of a separate $550,000 appropriation for the North Branch of the Potomac River. The money would be used to continue feasibility studies of environmental restoration projects along the waterway.

Money for both projects is in the bill that will fund U.S. Army Corps of Engineers activities during the budget year that begins Oct. 1. Mollohan serves on the House Appropriations Committee, which last week approved the measure and forwarded it to the full House.

The update of the lake's master plan was initiated with $160,000 in federal funding that Mollohan obtained last year.

"Much has changed at the lake since the existing master plan was written more than 20 years ago. For example, water quality has improved to the point that the lake now hosts a recreational fishery - something the old plan said it could not support," he said.

"In updating the plan, the Corps of Engineers is taking into consideration this and other ways in which the resource has changed. It also is examining public opinion on the lake's future uses, effects of yearly increases in visitation, current and future economic conditions in the area and the like," he added.

The Piedmont Herald

The Community Newspaper of the Tri-Towns - Piedmont, WV, Westernport & Luke, MD

Piedmont, WV 26750 Tuesday, July 23, 1996

Mollohan Works For Jennings Randolph Lake

WASHINGTON-- First District Congressman Alan B. Mollohan has placed in a federal spending bill the $140,000 needed to finish a two-year-long update of Jennings Randolph Lake's master plan.

"Revising this plan, which dates back to 1973, is an essential step in determining how we want to use Jennings Randolph Lake in the years to come. I am pleased that the funding I've earmarked will allow this process to move forward, because we can't afford to leave to chance the future of such an important resource. We must guide its development with careful thought," said Mollohan, D-WVA.

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"In updating the plan, the Corps of Engineers is taking into consideration this and other ways in which the resource has changed. It also is examining public opinion on the lake's future uses, effects of the yearly increases in visitation, current and future economic conditions in the area and the like," he added.

The new master plan will draw heavilyfrom the findings of a recent Corps study that examined possible recreational development of the lake. That "reconnaissance" study, completed last year, was conducted with federal monies that Mollohan obtained for the 1994 budget year.

Cumberland
Times-News

Cumberland, Maryland, Tuesday, July 30, 1996

West Virginia

In Brief

Boundary problem left up to states

WASHINGTON (AP) — The House agreed Monday to allow West Virginia and Maryland to work together to resolve a boundary problem caused by the meandering Potomac River.

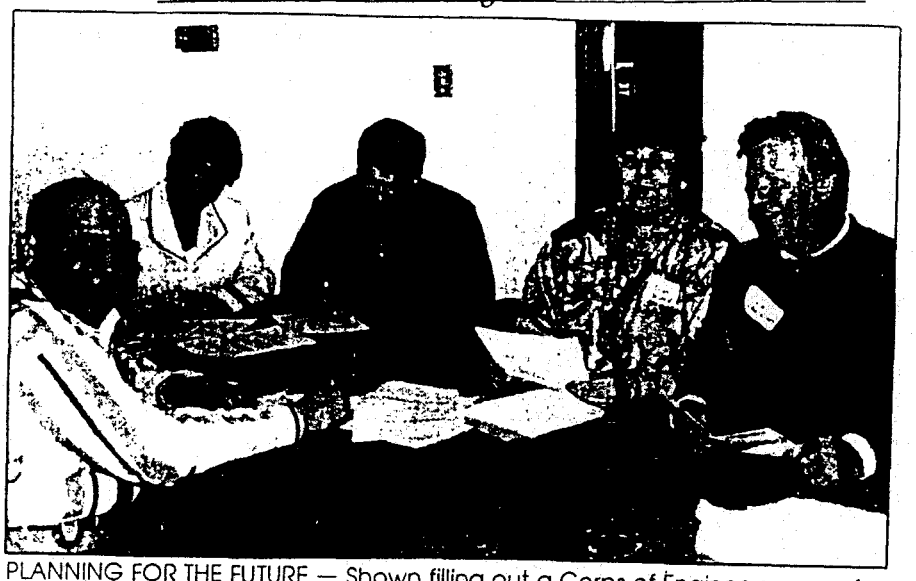
By voice vote, the House adopted a Senate-approved resolution giving Congress' consent to a compact under which the two states would jointly manage natural resources and law enforcement on the Jennings Randolph Lake Project.

The House Judiciary Committee concluded the agreement was necessary because the aging of the Potomac's north branch had caused it to widen, leaving the border indiscernible.

The resolution now goes to the president.

April 21, 1997

Mineral Daily News-Tribune



PLANNING FOR THE FUTURE — Shown filling out a Corps of Engineers survey for future development at Jennings Randolph Lake are (l-r) Jack Sanders, Kay Vaughan, Rex Riffle, Anne Palmer and Mike Haywood. Survey forms and information are still available locally for public input. *(News-Tribune photo by Sam Shawver)*

Corps seeking ideas for Jennings R. Lake

By SAM SHAWVER
News Editor
Daily News-Tribune

After attending a business seminar at the conference center and spending a restful night in a comfortable lodge room, a future visitor to Jennings Randolph Lake might take a refreshing dip in the swimming pool or play golf on an 18-hole, par 4 course complete with clubhouse, pro-shop and golf carts.

Other visitors may stay in cabins overlooking the lake and could spend their days riding the waves on jet skis or just catching a few rays on one of the beaches. Later they might hop into a boat moored at the marina and take a leisurely evening cruise.

According to surveys conducted by the Baltimore District U.S. Army Corps of Engineers, those are just a few of the improvements people say they would like to see at the 952-acre dam site.

Personnel from the Corps of Engineers displayed four scenarios for possible future development of the lake during an open house at the Mineral Development Authority Office in Keyser April 15.

Each of the four alternatives was represented on a map of the impoundment and surrounding areas in Maryland and West Virginia. Handouts listed the main elements for each scenario.

The alternatives ranged from smaller projects like providing potable water and flush toilets to the Robert W. Craig Campground, extending trails and providing more lake access for fishermen, to more elaborate plans involving a conference center/lodge, marinas and golf course.

However, such improvements, even the smaller ones, cost money — money the Corps of Engineers doesn't have, according to Dam Superintendent Russ Newman.

"But it is possible for vendors to lease the property and develop it for the private sector," Newman explained. He said that was the basic idea behind developing a master plan for the area.

Corps Landscape Architect and Outdoor Recreation Planner Lacy Evans said the four scenarios resulted from comments written in the visitor log book and other surveys taken at the lake's visitor center. She said the Corps hoped to obtain more public feedback through survey questions asked during the open house and eventually produce a master plan.

Barbara Grider, also with the Corps of Engineers, said although four separate alternatives were developed to help the public envision the possibilities, the final plan will most likely incorporate a combination of ideas from all four.

"We expect to have a draft master plan and Programmatic Environmental Impact Statement (EIS) ready in June for a 45-day review period," Evans explained. "After that review and comment period, a final draft will be developed."

The public can still participate in the Corps of Engineers survey by obtaining a form from Kay Vaughan at the Mineral County Development Authority in the Health Department building on Harley Staggers Drive, Keyser, (304)788-3383; Anne Palmer with the Mineral County Chamber of Commerce, 75 South Mineral St., Keyser, 788-2513; or Rex Riffle with Mineral County Parks and Recreation at the County Courthouse on Armstrong Street in Keyser, 788-5732.

APPENDIX A

Recreation and Economic Analyses

SOCIOECONOMIC TABLES

(Tables referenced to Section 4.0)

Table 1: Land Use in Maryland, West Virginia, and Pennsylvania

State/County	Cropland	Pasture	Forest	Urban	Water	Total Acres
Maryland	514,297	210,237	985,974	448,145	299,521	2,458,277
Allegany	20,000	45,000	131,156	23,100	3,499	222,755
Garrett	10,515	7,226	135,140	72,000	2,828	227,709
West Virginia	159,247	311,799	1,583,861	182,392	7,523	2,244,822
Hampshire	5,302	63,627	318,134	222,342	9,105	414,805
Tucker	N/A	N/A	N/A	N/A	N/A	N/A
Preston	N/A	N/A	N/A	N/A	N/A	N/A
Grant	20,984	54,961	222,342	9,105	1,643	309,035
Hardy	21,245	50,585	290,358	11,955	94	374,237
Mineral	12,393	23,940	164,957	9,494	589	211,373
Pennsylvania	309191	95056	565060	47,320	1,056	1,017,683
Bedford	24,127	9,746	159,412	604	354	194,243
Somerset	9,055	4,644	64,202	400	0	78,301

*N/A: not available

Source: Comacho, R., 1991, "Potomac River Basin Land Use Data..."; and State of Maryland Office of Planning, 1991, "Maryland's Land 1973-1990: A Changing Resource"

Table 2: Percent Land Use in Maryland, West Virginia, and Pennsylvania

State/County	Cropland	Pasture	Forest	Urban	Water	Total Area
Maryland	20.9	8.6	40.1	18.2	12.2	2,458,277
Allegany	7.2	16.5	66.5	8.5	1.3	222,755
Garrett	6.7	4.6	85.8	2.7	0.2	227,709
West Virginia	7.1	13.9	70.6	8.1	0.3	2,244,822
Hampshire	1.3	15.3	76.7	6.1	0.6	414,805
Tucker	N/A	N/A	N/A	N/A	N/A	N/A
Preston	N/A	N/A	N/A	N/A	N/A	N/A
Grant	6.8	17.8	72	2.9	0.1	309,035
Hardy	5.7	13.5	77.5	3.2	0.2	374,237
Mineral	5.9	11.3	78	4.5	0.3	211,373
Pennsylvania	30.4	9.3	55.6	4.6	0.1	1,017,683
Bedford	12.5	5.2	82	0.3	0.1	194,243
Somerset	11.6	5.9	81.9	0.5	0	78,301

Data for areas within Jennings Randolph Market Area; n/a=not available

Source: Comacho, R., 1991, "Potomac River Basin Land Use Data..."; and State of Maryland Office of Planning, 1991, "Maryland's Land 1973-1990: A Changing Resource"

Table 3: Land Use Changes in Allegheny and Garrett Counties, Maryland

County/Land Use	1985	1990	Percent Change
Allegany			
Agriculture	34,879	35,093	0.6
Forest	212,150	212,459	0.1
Urban	16,980	17,656	4.0
Water	454	4,540	0.0
Garrett			
Agriculture	103,137	100,973	-2.1
Forest	297,542	294,843	-0.9
Urban	8,423	128,215	2.2
Water	5,355	53,550	0.0

Source: Comacho, R., 1991, "Potomac River Basin Land Use Data..."; and State of Maryland Office of Planning, 1991, "Maryland's Land 1973-1990: A Changing Resource"

Table 4: Population of the United States, Maryland, West Virginia, and Pennsylvania

Location	1990	2000	2020	2040*	Percent Change 1990-2040
United States	248,710,000	267,076,000	293,174,000	300,617,000	20.9
Maryland	4,781,468	5,314,450	6,126,600	6,316,600	32.1
Allegany	74,946	77,500	78,300	79,100	5.5
Garrett	29,550	30,650	32,400	33,650	13.9
West Virginia	1,793,477	1,792,000	1,893,000	1,920,000	7.1
Grant*	10,900	11,100	11,500	12,500	14.7
Hardy*	11.500	11,700	11,900	12,500	8.7
Hampshire*	18,100	18,300	18,700	19,500	7.7
Preston*	29,800	31,000	31,500	32,000	7.4
Mineral	26,697	26,890	27,402	29,602	10.9
Tucker*	7,728	7,850	7,900	8,200	6.1
Pennsylvania	11,881,643	12,312,000	13,294,000	13,634,000	14.7
Bedford	48,700	49,200	52,600	53,400	9.7
Somerset	79,300	80,300	85,100	86,500	9.1

Data for areas within Jennings Randolph Market Area
Source: U.S. Department of Commerce, 1990 Census of Population and Housing
*Population estimated for the year 2000 through 2040: Data not available

Table 5: Percent Employment Change: 2000 to 2040

Location	2000	2040
United States	14.0	13.7
Maryland	15.3	15.5
West Virginia	4.9	-3.7
Pennsylvania	N/A	N/A
BEA-016 (Pittsburgh, PA)	8.8	2.2
BEA-020 (Washington, D.C.)	19.3	25.0
MSA-1900 (Cumberland, MD-WV)	8.9	1.8

Table 6: Household Formation and Changes in Population: 1980-1990

Location	Family	Non-Family	Total	Percent Change of Total 1980-1990	Average per Household	
					1980	1990
United States	65,837,000	26,994,000	92,831,000	14.4	2.75	2.63
Maryland	1,245,814	503,177	1,748,991	19.7	2.82	2.67
Allegany County	20,403	9,231	29,634	-0.3	2.62	2.43
Garrett County	7,781	2,329	10,110	14.7	2.95	2.74
West Virginia	500,259	188,298	688,557	0.3	2.79	2.55
Hampshire Co.	4,608	1,574	6,182	20.5	2.84	2.63
Mineral County	7,496	2,485	9,981	5.4	2.83	2.62
Grant County	N/A	N/A	N/A	N/A	N/A	N/A
Hardy County	N/A	N/A	N/A	N/A	N/A	N/A
Preston County	N/A	N/A	N/A	N/A	N/A	N/A
Tucker County	N/A	N/A	N/A	N/A	N/A	N/A
Pennsylvania	N/A	N/A	N/A	N/A	N/A	N/A
Bedford	13,246	4,792	18,038			3.08
Somerset	N/A	N/A	N/A	N/A	N/A	N/A

Source: U.S. Bureau of the Census, 1981, 1991

Table 7: Percent Per Capita Income Change: 2000 to 2040

Location	2000	2040
United States	15.9	55.9
Maryland	12.3	48.0
West Virginia	16.3	62.3
Pennsylvania	N/A	N/A
BEA-016 (Pittsburgh, PA)	15.2	53.3
BEA-020 (Washington, D.C.)	13.5	50.6
MSA-1900 (Cumberland, MD-WV	14.5	54.6

DAY UNIT VALUE

(User Needs Survey)

Willingness to Pay: User Survey and Unit Day Value

The procedure used to determine willingness to pay for recreation activities at Jennings Randolph Lake is the unit day value method. The unit day value method relies on expert or informed opinion and judgement to estimate the average willingness to pay per recreation visitor. The number of points is generally established by a panel of recreation experts under five recreation criteria. Point values are converted to dollar amounts and they are combined with current and projected visitation figures to estimate national economic development (NED) benefits of expanding and improving the project. This method was chosen to estimate the willingness to pay based on criteria in ER 1105-2-100, Chapter 6, Section VIII, paragraphs 6-98, and 6-112 through 6-115. This method may be used when a regional model is not available, the project does not have any specialized recreation activities, estimated annual project visitation does not exceed 750,000, and annual recreation costs do not exceed $1,000,000.

The Unit Day Value method used for Jennings Randolph was modified specifically for this study by using a more empirical approach to assign point values. An empirical approach is advocated according to ER 1105-2-100, Chapter 6, Section VIII, paragraph 6-98, c.(2). This section states, "[t]o explain the selection of a specific value, a point rating method may be used to reflect quality, relative scarcity, ease of access and aesthetic features. Appropriate use should be made of studies of preferences, user satisfaction and willingness to pay for different characteristics..." To link the Unit Day Value with empirical information, a user survey was designed with the purpose of learning more about the preferences of visitors participating in recreation activities at Jennings Randolph Lake. Another purpose of the survey was to establish the level of satisfaction experienced by visitors under current facility conditions. The survey was designed with a point system that could be equated to the Unit Day Value Point System, as defined in ER 1105-2-100. Through a careful analysis of the survey results, a ranking criteria was established to assign points to the activities the users participated in while visiting the lake. The ranking criteria was measured on a point scale ranging from excellent to poor; the points assigned to the survey ranged from 5 to 1, with 5 as excellent and 1 as poor. Survey questions I through VII were written to apply directly to each of the five unit day value criteria; 1) recreation experience, 2) availability of opportunity, 3) carrying capacity, 4) accessibility, and 5) environmental quality. In one case, "Availability of Opportunity," the criteria was not obtained through survey data, but is tied to objective factual information, which is based on the number of similar recreation facilities within an established travel time period.

The survey was conducted by the U.S. Army Corps of Engineers on July 3, 4 and 5, 1996. The survey was administered over a holiday when the average use of the recreational facilities is at its highest. The results of the survey sample were tabulated and a weighted average was computed to represent the point value of each criteria. The sum of the weighted average for each criteria is equal to the Unit Day Value for recreation at Jennings Randolph Lake.

This section documents the survey results and explains the connection to the five Unit Day Value recreation criteria. Each criteria is defined, the survey question identified, and an

individual table shows how the criteria is broken out with the total points, and how the points relate to the information in ER 1105-2-100 (all cited definitions are taken from this ER). The survey results and their applicability to unit day value criteria are identified in the remainder of this section.

Criteria 1: Recreation Experience

The recreation experience criteria is based on the number of general activities accommodated at the site, and the quality of these activities. General recreation activities are defined as common to the region and of normal quality (i.e. picnicking, hiking, fishing, etc.). Whereas, high quality value activities are those that are not common to the region and/or Nation and are of high quality. All activities at Jennings Randolph are general recreation activities. The rating for recreation experience was based on survey responses to Questions I and II.

The point values were assigned on the basis of the number of activities listed by each respondent and the quality rating they gave each activity (excellent to poor). The activities mentioned in the user survey are described in the following paragraphs. The survey points are also listed in Table 1.

Bicycling. During the past 10 years there has been a tremendous national interest in bicycling; this is also true in West Virginia and Maryland. The survey results indicate that out of the 9 participants that responded to this question, 7 of them ranked bicycling as an excellent activity to participate in while visiting the lake, while 2 respondents ranked this activity as very good. The average rating for this activity is excellent.

Boating. Recreational boating, canoeing, and motor-boating continue to be popular and growing visitor activities at the lake. The survey results indicate that out of 22 responses for motorboating, 11 ranked these activities as excellent, and 10 respondents ranked these as very good. The survey results indicate that out of 2 responses for canoeing, 2 ranked these activities as very good for an average rating of very good. The results of these activities are aggregated to produce an average of very good for boating activities.

Camping. According to our survey results camping continues to be a popular activity at Jennings Randolph Lake. There were 39 participants who responded to this question. The survey results indicate that out of these 39 responses 27 ranked this activity as excellent, 6 ranked it as very good, 5 ranked it as good, and 1 ranked it as fair. The average rating for this activity is excellent.

Fishing. West Virginia waters offer excellent opportunities for freshwater fishing in some areas and extremely limited opportunities in other areas. When Jennings Randolph Lake was first constructed, the water quality was poor due to the pH levels. However, in the past 10 years, water quality at the lake has improved dramatically and is suitable for fishing and other water contact activities. The survey results indicate that out of 33 responses to this question, 7 ranked these activities as excellent, 2 ranked them as very good, 11 ranked them as good, 5 ranked them as fair, and 8 ranked them as poor. According to the survey results the overall rating for this activity is good.

Hiking and Walking. Hiking and walking are two of the fastest growing activities in the states of West Virginia and Maryland. A total of 26 participants rated the hiking areas with an overall rating of very good. The survey results indicate that out of the 26 responses, 11 ranked hiking as excellent, 6 ranked it as very good, 6 ranked it as good, and 3 ranked it as fair.

A total of 29 participants rated the walking areas with an average rating of very good. The survey results indicate that out of these 29 responses, 14 ranked walking as excellent, 8 ranked it as very good, 6 ranked it as good, and 1 ranked it as fair.

Hunting. West Virginia is known to offer some of the best hunting opportunities in the United States, and Jennings Randolph has approximately 3,000 acres available to hunting (approximately 85% of project lands). Only 2 participants responded to this question and both ranked this activity as fair; the average ranking given for this activity was fair. However, the time of year in which the survey was given was inappropriate to get an accurate profile of the preferences of recreational hunters. Due to an extended archery season, early deer muzzleloader season, and an extended deer firearm season, there has been an increase in use of project lands in Maryland for hunting. Therefore, the survey responses (a rating of fair) do not accurately reflect a normal sample for this activity; the survey question and results were kept as part of the overall survey rating.

Picnicking. Participation in this activity continues to indicate that picnicking is an extremely popular outdoor recreation activity. The picnic area for Jennings Randolph is located on the West Virginia side, which gives it a scenic, panoramic view of the lake and the project lands. The picnic area has approximately 20 acres of land. There were 31 participants who responded to this question. The survey results indicate that out of these 31 responses, 15 ranked these activities as excellent, 11 ranked them as very good, and 5 ranked them as good. The average ranking given for this activity is very good.

Swimming. The survey showed that some users at the lake participate in swimming even though there are no designated swimming areas. Fourteen (14) participants responded to this question. Since there are no designated swimming areas at Jennings Randolph this activity is usually participated in by people who are also boating. The survey results indicate that out of the 14 responses 4 ranked this activity as excellent, 5 ranked it as good, 2 ranked it as fair, and 3 ranked it as poor. The average ranking is fair to good.

Waterskiing/Jetskiing. At the time of the survey these activates could only be accessed from the West Virginia side. For Waterskiing there were 6 participants who responded to this question. The survey results indicate that out of these 6 responses 3 ranked these activities as excellent, and 3 ranked them as very good for an average rating of very good for these activities. For Jetskiing there were 5 participants who responded to this question. The survey results indicate that out of these 5 responses 4 ranked these activities as excellent, and 1 ranked them as very good. The average ranking for these activities is excellent.

TABLE 1
Jennings Randolph Lake Master Plan
Summary of Survey Results
Recreation Activities

Activity	Total Number of Responses	Total Number of Points Assigned	Average Point Value	Qualitative Rating
Bicycling	9	43	5	Excellent
Boating				
-Motorboating	22	95	4	Very Good
-Canoeing	2	8	4	Very Good
Camping	39	176	5	Excellent
Fishing	33	94	3	Good
Walking				
-Hiking	26	103	4	Very Good
-Nature Walking	29	122	4	Very Good
Hunting	2	4	2	Fair
Picnicking	31	134	4	Very Good
Swimming	14	52	3	Good
Water Sports				
-Waterskiing/	6	23	4	Very Good
-Jetskiing	5	24	5	Excellent

Table 2 combines the point values of user responses for all the recreation activities to get an overall weighted average for the "recreation experience" criteria. Tables 3 through 6 for the remaining recreation criteria are constructed the same as Table 2. In each case the number of responses equated to each judgement factor was multiplied by the midpoint value for that factor. The sum of these products was divided by the number of responses to derive the a weighted Average Unit Day Value points.

The points are broken out by the type of responses given by the users. The users were asked to respond through point values of 1 to 5; one equaling poor, and 5 equalling excellent. These point values were then equated to the judgement factors for each criteria category in ER 1105-2-100. For example a rating of poor equates to the judgement factor located in the first column on the left: "two general activities". A rating of Excellent equates to the judgement factor in the right column: "numerous high quality value activities; some general activities" The weighted average of user responses is used to provide the overall rating for this criteria.

TABLE 2

Jennings Randolph Lake Master Plan

Criteria 1 - Recreation Experience

UDV Point Range	Two General Activities *(0-4)*	Several General Activities *(5-10)*	Several General Activities; One High Quality Activity *(11-16)*	Several General Activities; More Than One High Quality Activity *(17-23)*	Numerous High Quality Value Activities; Some General Activities *(24-30)*
Midpoint UDV	2.5	7.5	13.5	20	27
Total # of Responses (222)	11	14	45	40	111
Total # of Points (4539.5)	30	105	607.5	800	2997
Average UDV Points	20 = Total Points (4539.5) / Total Responses (222)				

Criteria 2: Availability of Opportunity.

Availability of opportunity is based on the proximity of comparable recreation substitutes. The higher the number of competing facilities that are in close proximity to the project, the lower the value for this criteria. Since the availability of opportunity criteria is based on the observable number of similar recreation substitutes within a certain driving distance from the project, it was decided that it was not necessary to ask a question about this on the survey. The recreation facilities that serve as substitutes to Jennings Randolph were identified using maps and recreation data from Maryland, West Virginia, and Pennsylvania. Since there are no similar facilities within 30 minutes, but several within 1 hour, a point value of 6 was assigned to this criteria (Table 3).

TABLE 3

Jennings Randolph Lake Master Plan

Criteria 2 - Availability of Opportunity

UDV Point Range	Several w/in 1 hr. travel time; a few w/in 30 min. travel time *(0-3)*	Several w/in 1 hr. travel time; none w/in 30 min. travel time *(4-6)*	One or two w/in 1 hr. travel time; none w/in 45 min. travel time *(7-10)*	None w/in 1 hr. travel time *(11-14)*	None w/in 2 hr. travel time *(15-18)*
Average UDV Points	Point value of 6 was not based on survey - it was based on a review of state maps and recreation plans				

Criteria 3: Carrying Capacity

Carrying capacity is the adequacy of the design load to accommodate the projected demand under good to optimal recreation conditions, without deterioration of the resource. There is a desired design load for each activity within a facility and the value increases as this goal is

reached. However, the value begins to decrease if the design load is exceeded and the facility becomes subject to overuse; this decrease is not reflected in Table 4.

The purpose of this question was to establish whether the existing carrying capacity was adequate to support participation in each recreation activity during a peak season day. Survey Question IV asked participants to rate the availability of the recreation facilities that they made use of on this or previous trips to the lake. Question VI on the survey asked users to indicate how specific facilities and amenities (i.e. access to trails, hunting, and natural areas) at the project benefitted them. The intent of these question was to identify if each recreation facility had an adequate carrying capacity to provide a specific level of satisfaction to the user. Users were asked to respond on a scale of 1 to 5, with 5 being a very large benefit and 1 being no benefit at all. The survey results indicate (Table 4) that out of the 50 responses, 25 were excellent, 16 were very good and 9 were good. None of the respondents gave a ranking of fair or poor. These responses averaged to a point value of 10.96; rounded to 11.

TABLE 4

Jennings Randolph Lake Master Plan
Criteria 3 - Carrying Capacity

UDV Point Range	Minimum facility dev for public health and safety *(0-2)*	Basic facilities to conduct activity *(3-5)*	Adequate facilitiesto conduct w/out deterioration of resources or activity experience *(6-8)*	Optimum facilities to conduct activity at site potential *(9-11)*	Ultimate facilities to achieve intent of *(12-14)*
Midpoint UDV	1	4	7	10	13
Total # Responses (50)	0	0	9	16	25
Total # Points (548)	0	0	63	160	325
Average UDV Points	11 = Total Points (548) / Total Responses (50)				

Criteria 4: Accessibility

Accessibility is somewhat self-explanatory. Largely, this criteria is based on the quality of the roads leading to the project and access within the project between recreation sites.

Question V on the survey asked users to rate accessibility of various activities in and around Jennings Randolph Lake. However, as stated in the preceding paragraph, part of the accessibility criteria depends on the accessibility to the project (roads outside the project). This was not part of the survey question. Of a total of 50 responses to this question, 20 were excellent, 13 were very good, 10 were good, 6 were fair, and 4 were poor. The survey responses averaged to a point value of 11.6 (Table 5), rounded to 12. An adjustment was then made to account for the accessibility to the project on outside roads. Access to the project may be from either Maryland or West Virginia. There are two ways to access the project from

Maryland; 1) WV SR 46, which is a two lane dirt and gravel road originating in Luke, Maryland, that changes to paved road about 1 mile northwest of the project, and 2) MD SR 38 to WV SR 42 to Elk Garden, West Virginia to WV SR 46 to the project. The access from the West Virginia side is through Keyser, West Virginia on WV SR 42 to WV SR 46 which is a paved two-lane state highway providing access from West Virginia. Since these are the only roads to the project, and one of them is not completely paved, the total point value for this criteria was adjusted to 9. This accounts for the limited access to the project. A point value of 9 is described as: "fair access, fair roads to site; good roads within site", which reflects the existing condition more accurately than a point value of 12.

TABLE 5

Jennings Randolph Lake Master Plan
Criteria 4 - Accessibility

UDV Point Range	Limited access by any means to site or w/in site *(0-3)*	Fair access, poor quality roads to site; limited access w/in site *(4-6)*	Fair access, fair road to site; fair access; food rads w/in site *(7-10)*	Good access, good roads to site; fair access, good roads w/in site *(11-14)*	Good access, high standard road to site; good access w/in site *(15-18)*
Midpoint UDV	1.5	5	8.5	12.5	16.5
Total # Responses (53)	4	6	10	13	20
Total # Points (613.5)	6	30	85	162.5	330
Average UDV Points	12 = Total Points (613.5) / Total Responses (53) Adjusted to **9** - Points for the accessibility category were adjusted to reflect the 2-part criteria; roads on the site (survey) and roads to site (maps and professional judgement). Roads to site were not part of a survey question.				

Criteria 5: Environmental Quality

Environmental quality is a criteria for rating a combination of aesthetic (visual) factors and environmentally desirable factors. ER 1105-2-100 states that the factors that contribute to low quality in this category include: air and water pollution, pests, poor climate and unsightly adjacent areas

In order to quantify the environmental quality of the facilities, Question VII asked the users to rate various problems related to recreational use of the project using a scale of 1 (not a problem) to 5 (a very large problem). Problems such as litter, noise, crowding, and traffic relate to the overuse or degradation of the facilities. Out of a total of 52 responses (Table 6), 48 were not a problem, 3 were a slight problem, 1 was a moderate problem. The average point value for this criteria, based on the user surveys, is 17.5, rounded to 18. A point value of 18 is one that is described as having "outstanding aesthetic quality, with no factors to lower quality." Ninety-two percent of the 52 users surveyed responded this way.

TABLE 6

Jennings Randolph Lake Master Plan
Criteria 5 - Environmental Quality

UDV Point Range	Low aesthetic factors that significantly lower quality *(0-2)*	Average aesthetic quality; factors exist that lower quality to minor degree *(3-6)*	Above average aesthetic quality; any limiting factors can be reasonably rectified *(7-10)*	High Aesthetic quality; no factors exist that lower quality *(11-15)*	Outstanding aesthetic quality; no factors exist that lower quality *(16-20)*
Midpoint UDV	1	4	8.5	13	18
Total # Responses (52)	0	0	1	3	48
Total # Points (911.5)	0	0	8.5	39	864
Average UDV Points	18 = Total Points (911.5) / Total Responses (52)				

Total Unit Day Value Points

The total number of unit day points based on survey responses to the five recreation criteria is 64 points. According to the FY 97 Economic Guidance Handbook, 64 points relates to a value of $6.00 per visitor day.

This value is used to estimate the National Economic Development (NED) benefits of the existing condition. The value is derived by multiplying the visitation rate for the plan by the dollar value associated with unit day value points for the existing condition. Since, the unit day point value of the existing condition is 64 and this number eequates to a value of $6.00 per visitor day, the NED value associated with the existing condition is $6.00 X 76,000 (visitors), or $456,000.

Figure 1

JENNINGS RANDOLPH LAKE
LAKE RESIDENTS RECREATION SURVEY

Hello. My name is I work for the Corps of Engineers, and we are conducting a recreation survey at **Jennings Randolph Lake**. The Corps of Engineers has been estimating the amount of recreation use at developed park areas at this project for some time. This survey is being done to learn more about the recreation activities of people living near the project. Would you be willing to take 15 minutes of your time to answer some questions about your household and recreation use of **Jennings Randolph Lake**. **ALL INFORMATION YOU PROVIDE IS VOLUNTARY AND WILL BE KEPT IN STRICT CONFIDENCE.**

This section will cover recreational activities only.

I. What recreational activities did you or your party participate in while visiting the Lake?

1. camping
2. canoeing/kayaking
3. fishing
   a. from bank
   b. from boat
4. horseback riding
5. hiking
6. hunting
7. jetskiing
8. picnicking
9. motor boating
10. sail (boat)
11. swimming
12. water-skiing
13. wildlife or nature walking
14. windsurfing/sailboarding
15. other

II. From the activities listed above, how would you personally rate the quality of these activities at the Lake? (Interviewer: read the rated activities back to the participant-list in column 1.)

Activities	1. Excellent	2. Very Good	3. Good	4. Fair	5. Poor
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

III. How would you rate the quality of the following facilities that are on or near the Jennings Randolph Lake? (Within the park)

1. Boat Access sites?
   1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor

2. Trails for walking, hiking, and biking?
   1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor

3. Public facilities? (restroom, water fountains)
   1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor

4. Quiet areas to sit and view the Lake?
   1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor

5. Educational displays (visitor center, bullentin board and waffle rock)?
   1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor

6. Camping facilities?
   1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor

7. Other programs? (camp fires, movies)
   1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor

8. Picnic Sites?
   1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor

IV. How would you rate the availability of the above facilities that occur along or near the Lake?

Activities	1. Excellent	2. Very Good	3. Good	4. Fair	5. Poor
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

1. What other type of additional facilities would you like to see at Jennings Randolph Lake?

V. How would you rate accessibility in and around the Lake? (Within the park)
(i.e., how easy is it to get from the campground to lake, or from a picnic site to trails)
   1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor

VI. Please indicate to what degree the project in this area and its various facilities has benefitted you. *Please indicate with a number by using the scale below.*

The Lakes Provides:

1. Recreational opportunities

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

2. Scenic enjoyment

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

3. Access to hunting areas

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

4. Access to natural areas

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

5. Increased access to trails

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

6. Access to entertainment

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

7. Improved community services

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

8. A high quality of life

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

VII. People may or may not experience the types of problems listed below because of recreational use of the Jennings Randolph Lake in the West Virginia area. Please indicate a rating to what degree you find each items to be a problem.

Litter

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

Noise

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

Fear for safety

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

Crowding on hiking trails, in parks, and other recreational areas?

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

Vandalism?

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

Traffic congestion on roads along, or leading to, the project area?

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

Higher cost of goods and services?

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

Alcohol and drug in the project area?

Not at All	Slight	Moderate	Large	Very large
1	2	3	4	5

VIII.

1. How often do you visit the lake?

2. What is your one-way travel distance from your home to the Lake?

_____ Miles one-way

3. How long does it take you to get to the Lake?

_____ Hours /minutes

4. How many nights will you stay at the Lake?

_____ Nights

THIS PART OF THE QUESTIONNAIRE WILL ADDRESS THE PROFILE OF YOUR HOUSEHOLD.

Your answers are strictly voluntary. (Base on observation questions 1, 2)

1. Male 2. Female

2. Race 1. White 2. Black 3. Amercian Indian 4. Hispanic

3. What is your age? 1. 20-under 2. 21-29 3. 30-39 4. 40-50 5. 50+

4. What is your highest level of education?
   1. 8th Grade or less
   2. Some High School
   3. High School Graduate
   4. Some College
   5. College Grad or more

5. What is your employment status?
   1. self-employed
   2. employed full-time
   3. employed part-time
   4. student
   5. retired
   6. homemaker
   7. not employed

6. What is your occupation? _____

7. What is your zipcode? _____

8. How many years have you recreated on Jennings Randolph Lake?_____

Survey Results
3-5 July 1996

JENNINGS RANDOLPH LAKE
LAKE RESIDENTS RECREATION SURVEY

Hello. My name is I work for the Corps of Engineers, and we are conducting a recreation survey at **Jennings Randolph Lake**. The Corps of Engineers has been estimating the amount of recreation use at developed park areas at this project for some time. This survey is being done to learn more about the recreation activities of people living near the project. Would you be willing to take 15 minutes of your time to answer some questions about your household and recreation use of **Jennings Randolph Lake**.

I. What recreational activities did you or your party participate in while visiting the Lake?

ACTIVITIES	TOTAL NUMBER OF VOTES
1. Camping	34
2. Canoeing/Kayaking	1
3. Fishing	1
a. from bank	20
b. from boat	17
4. Horseback Riding	0
5. Hiking	23
6. Hunting	1
7. Jet-skiing	3
8. Picnicking	32
9. Motor Boating	21
10. Sail (boat)	1
11. Swimming	18
12. Water-Skiing	9
13. Wildlife or Nature Walking	37
14. Windsurfing/Sailboarding	1
15. Other	
Bike Riding	9
Programs	2
Horseshoes	4
Basketball	1
Playground	1
Roller-blading	1
Relaxing	1
Volleyball	1

II. From the activities listed above, how would you personally rate the quality of these activities at the Lake?

ACTIVITIES	EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
1. Camping	23	7	3	1	0
2. Canoeing/Kayaking	0	0	1	0	0
3. Fishing	1				
a. from bank	4	2	4	2	4
b. from boat	1	1	8	3	3
4. Horseback Riding	0	0	0	0	0
5. Hiking	11	5	5	1	0
6. Hunting	0	0	0	0	0
7. Jet-skiing	2	1	0	0	0
8. Picnicking	14	9	7	0	0
9. Motor Boating	14	3	1	0	0
10. Sail (boat)	0	0	0	0	1
11. Swimming	6	0	5	2	1
12. Water-Skiing	5	1	1	0	0
13. Wildlife or Nature Walking	15	6	5	1	0
14. Windsurfing/Sailboarding	0	0	0	0	1
15. Other					
a. Bike Riding	7	2	0	0	0
b. Programs	1	1	0	0	0
c. Horseshoes	2	0	1	0	0
d. Basketball	0	0	1	0	0
e. Playground	1	0	0	0	0
f. Roller-blading	1	0	0	0	0
g. Relaxing	0	0	0	0	0
h. Volleyball	0	0	0	0	0

III. How would you rate the quality of the following facilities that are on or near the Jennings Randolph Lake? (Within the park)

FACILITIES	EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
1. Boat Access Sites	22	3	7	2	1
2. Trails for walking, hiking and biking	15	7	7	1	0
3. Public Facilities (restrooms, water fountains)	25	8	13	5	2
4. Quiet areas to sit and view the Lake	23	16	7	1	0
5. Educational Displays (Visitor Center, Bulletin Boards and Waffle Rock)	17	16	2	0	0
6. Camping Facilities	21	10	1	0	0
7. Other Programs (Camp Fires, Movies)	15	5	2	0	0
8. Picnic Sites	19	12	2	1	0

IV. How would you rate the availability of the above facilities that occur along or near the Lake?

FACILITIES	EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
1. Boat Access Sites	23	8	3	1	2
2. Trails for walking, hiking and biking	18	6	4	2	1
3. Public Facilities (restrooms, water fountains)	26	12	8	2	0
4. Quiet areas to sit and view the Lake	25	14	6	1	0
5. Educational Displays (Visitor Center, Bulletin Boards and Waffle Rock)	18	8	4	2	0
6. Camping Facilities	20	8	4	0	0
7. Other Programs (Camp Fires, Movies)	15	3	3	0	0
8. Picnic Sites	22	5	6	1	0

V. How would you rate accessibility in and around the Lake? (Within the park)
(i.e., how easy is it to get from the campground to lake, or from a picnic site to trails)

RATING	VOTES
Excellent	20
Very Good	13
Good	11
Fair	5
Poor	2

VI. Please indicate to what degree the project in this area and its various facilities has benefited you.
Please indicate with a number by using the scale below.
The Lakes Provides:

FACILITIES	NOT AT ALL	SLIGHT	MODERATE	LARGE	VERY LARGE
1. Recreational Opportunities	5	3	13	10	21
2. Scenic Enjoyment	1	2	5	15	30
3. Access to Hunting Areas	12	0	1	2	1
4. Access to Natural Areas	2	2	13	17	14
5. Increased Access to Trails	6	1	8	8	13
6. Access to Entertainment	10	1	5	7	10
7. Improved Community Services (roads, police)	8	8	4	10	11
8. A High Quality of Life	3	5	9	14	22

VII. People may or may not experience the types of problems listed below because of recreational use of the Jennings Randolph Lake in the West Virginia area. Please indicate a rating to what degree you find each items to be a problem.

FACILITIES	NOT AT ALL	SLIGHT	MODERATE	LARGE	VERY LARGE
Litter	38	11	1	1	2
Noise	39	12	2	0	0
Fear for Safety	45	5	1	2	0
Crowding on Hiking Trails, in Parks, and other Recreational Areas	48	4	0	1	0
Vandalism	52	1	0	0	0
Traffic Congestion on Roads along, or leading to the Project Area	50	2	1	0	0
Higher Cost of Goods and Services	37	8	5	0	0
Alcohol and Drugs in the Project Area	46	7	0	0	0

What other type of additional facilities would you like to see at Jennings Randolph Lake?

From Surveys taken at Campground, Picnic Area, WV Overlook, and Boat Launch

Concession
Need Floating Dock
More Handicap Facilities
More Access Points to the Lake
Golf Course
Water Slide
More Stockings, larger sizes
Fish Habitat
Bar
Sell Lake-Front Activities
Beach Area
Boat Launch Closer to Dam
More Ranger Patrol of Fishing (Conservation Officers)
More Picnic Sites
HR Picnic Area - set of steps to water
HR Boat Launch - telephone, lighting, year-round access
Rangers very knowledgeable and courteous
More Stores
More Shoreline Access
Fish Structure
Boat Dock
Floating Dock
Potable water at Boat Launch
Fish Attractors
More overlooks, trails, displays, programs on weekdays, facilities at boat launch
Primitive campsites away from campground
Backpacking trail at least 5 miles one way
Improve swimming - add sand beach
New Recreation Area at end of Old Shaw Road
Trail from campground to lake
More trashcans
Improve 46 to get to lake
More Recreation around campground - volleyball, swimming
Swimming area and beach
Post Camping rates at Overlook
Recreation Areas for kids at Campground
Improve signs to lake (Elk Garden)
Keep it the way it is
None
Escalator at Visitor Center
Boat Launch - another location in West Virginia
Dock by Picnic Area w/ access to campground
Boat Rentals
Swimming area and beach
More Horseshoe Pits
Designated area for people with pets
Water at Picnic Area
More Electric Sites
Dump Station - move asphalt on trailer side so gravity will kick in, right now it slopes away from trailer
Speed Bumps - put further down on hill so can pick up speed to get trailer up hill with less strain on motor

Swim Area at Lake
Speed Bumps - make wider so not so bumpy
Swim Area and Beach
Campsites closer to water
More Trails
Nature Center
Sandy Beach at Lake
Remove Debris along shoreline
Swimming Pool
Another flush toilet at campground
Tennis Courts
Game Room - pool, Ping-Pong
Better hiking trails
Basketball
Tennis Courts
Swimming Pool
More Camping Areas
Store/snack shop
Bait shop
Tennis Courts
Boat Docks
Gas - boats
Mobile store
Volleyball
Primitive Camping Area in Maryland (want to spend $ in Maryland)
Gas
Shooting Range
More Fish
Boat Docks
Volleyball
Swim area (lake and campground)
Clear Debris from High Timber Trail
Water at Campsites
More Comfort Stations
Maintain Privacy at Campground
Convenience Store (ice, firewood)
Swim Area in Campground
2nd playground at campground
Beach Area
Better Fishing
Skunk Patrol
Fire for Sale
Playground for Young Children
Update Visitor Center - aquarium to see fish in lake, more interactive displays
More Stands for lanterns at Campsites
Laundry Facilities
Reservation System
Designated Handicap site close to bathroom
Thing to do for young and teenagers
Ice Machine
Stock more fish
Storage area at Campground for boats and campers
Light at Boat Launch
Swim Area - Cove by county road - old roadbed

Vending Machines
Parking for Boats
Increase Shoreline Access
Hiking Trails at other places than campground
Shelter for picnic tables
Trails from lake to picnic area
Put signs at beginning of road that leads to Maryland Overlook that states area is closed, and include directions/map to West Virginia Overlook
Need Potable Water at Picnic Area
Dock at boat launch

From Surveys Downstream of Dam
Trash Cans
Port o' Johns
Install horn to signal releases
Open area immediately downstream of dam to fishing

EXISTING RECREATION AREAS

West Virginia
Maryland
Pennsylvania

TABLE _

EXISTING RECREATION FACILITIES IN THE TWO HOUR MARKET AREA

M A R Y L A N D

GARRETT COUNTY

State Parks

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Swallow Falls State Park				64		1	112			10 H	9,000
Herrington Manor State Park	1	2			20	1	225	1		7 H	9,000
Deep Creek Lake State Park	1	2	10 MS	112		4	400	1 AC.		5 H 6 SM	1,200
Big Run State Park	1	2		30		1	30			6 H	54,000
New Germany State Park	1	2		37	11	3	5	1		9 H 14 X	1,000
Casselman River Bridge State Park							30				
Total State Parks	4	8	10 MS	243	31	10	802	2 1 AC. beach	0	37 H 6 SM 14 X 57	74,200

State Forests

Savage River State Forest				80			10			34 SM 23 X	54,000
Potomac State Forest				45		1	40			10 MB 20 ORV	19,000
Total State Forests	0	0	0	125	0	1	50	0	0	10 MB 20 ORV 34 SM 23 X 87	73,000

Wildlife Management Areas

Mt. Nebo Wildlife Management Area										7 H	1,709

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Other Public Recreation Facilities

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear*	Pools*	Trails miles/ type*	Hunting Areas, acres
Grantsville Community Park						2					
Mt. Nebo Rest Area							4				
Route 219 Bikeway										9 MB	
The Cove Rest Area							7				
Western Maryland 4-H Center (Pleasant Valley)							20			3 H	
Spring Gap	1	1									
Fifteen Mile Creek	1	1									
Broadford Lake	1	1					137				
Camp Hickory						4			1	1 H	
Eastern Garrett Co. Recreation Area						1	8				
Kitzmiller Elementary School						1	4				
McHenry Community Park						1	12			1 H	
Youghiogheny River Lake, Marlyand Portion				30			30				382
Accident Community Park						1	1			1 H	
Grantsville Community Park						2	4				
Mountain Lake Park Community Recreation Center							4				
Piney Reservoir (Frostburg)										1 N	1,571
Alpine Village Inn			16 MS				30		1		
Bill's Marine Service, Inc.			225 DS 30 MS								
Brenneman's Grove							10				
Camp Minnetoska					15					1 N	
Colonial Lakeside			8 MS					.1			

* Marina, # slips
* Pools
* Trails, miles/type

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MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear*	Pools*	Trails miles/ type*	Hunting Areas, acres
Crystal Waters Marina			200 DS 20 MS								
Double G Campgrounds				178			40			4 H 3 ORV	
Dreamland Motel									1	3 ORV	
Echo Marina			4 MS								
End of Trail Camp Sites				20							
Garrett Co. Fairgrounds										2 SM	
Glen Acres Camping Area				82				.17		2 H	
Johnny's Bait House			15 MS								
Lake Breez Motel			2 MS								
Lakeside Motor Court			3 MS								
Little Brown Lake				50			25				
Little Meadows Lake				200			20				
Monkey Lodge Hills Campgrounds				60							50
Mountain Lodge 40, F.O.P.							20	.1			30
Mountainer Marine, Inc.			25 MS								
Patterson's Boat Company			110 DS 20 MS								
Piper's Path Camp Sites				35			10				
Point View Inn			10 MS								
Ponderosa Hunting Area										12 MP	500
Red Run Inn			18 MS					.1	1		
S. and H. Marina			90 DS 20 MS								
Silver Tree Inn			15 MS					.1			
Sleepwell Campsite				12							
Sleepy Hollow Campgrounds				10							
Sporlein's Grove							10				
Sun Cove			10 MS				5	.3			
The Inlet			18 MS				3	.1			
The Wisp										2 ORV	

* Marina, # slips
* Pools
* Trails, miles/type

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F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snow-mobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear*	Pools*	Trails miles/ type*	Hunting Area acres
Water's Edge Court			13 MS				3				
Westerm Trails. Inc/				100						54 H 25 X	175
Will O the Wisp Resort			50 MS					600 feet	1		
Wisp Resort			5 MS					.1	1		
Carey Run Bird Sanctuary										1 H	
Cranesville Swamp										1 H	
Finzel Swamp										5 H	
Total For Other Public Recreation Facilities	3	3	625 DS 302 MS	777	15	12	407	1.07 600 feet	6	73 H 9 MB 12 MP 2 N 8 ORV 2 SM 25 X 131	2,708
Total For Garrett County	7	11	625 DS 312 MS	1,145	46	23	1,259	2 beaches 1.07 mi. 600' 1 AC.	6	117 H 19 MB 12 MP 2 N 28 ORV 42 SM 62 X 282	151,617

* Marina, # slips
* Pools
* Trails, miles/type

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Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Allegany County

State Parks

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Rocky Gap State Park	2	4		278		5		2			
Dan Mountain State Park							130		1 oly		
Total State Parks	2	4	0	278	0	5	130	2	1 oly	0	0

State Forests

Savage River State Forest										22 H	230
Green Ridge State Forest	1	1		11		1	9			72 H	40,000
Garrett State Forest				18			30			15 SM	
Total State Forests	1	1	0	29	0	1	39	0	0	94 H 15 SM 109	40,230

Wildlife Management Areas

Billmeyer Wildlife Mgt. Area										2 H	658
Dan's Mountain Wildlife Mgt Area										15 H	8,353
Sideling Hill Wildlife Management Area										7 H	455
Warrior Mt. Wildlife Mgt. Area				1			3			7 H	3,087
Islands of the Potomac Wildlife Mgt. Area											80
Total Wildlife Management Areas	0	0	0	1	0	0	3	0	0	31 H	12,633

Other Public Recreation Facilities

Bel Air Community Park							6				
Flintstone Community Park						1					

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Fort Cumberland Playground						1					
Frazier Playground						1					
Sorrell Ridge Hiker Biker Overnight Camp				1							
Spring Gap Drive-In Camp	1										
Westernport Municipal Park							18				
Allegany Community College									1 oly	1 MP 1 N	
Allegany County Fairgrounds							20				
Ellerslie Community Park							8				
Flintstone School						1					
La Vale District Park						1	6		1		
Mt. Savage Community Park							16				
Narrows Scenic Park										2 H	
Parkside Elementary										1 H	
C and O Canal										48 MP	
Devils Alley Hiker Biker Camp				1							
Evitts Creek Hiker Biker Camp				1							
Fifteen Mile Creek Aqueduct				17			17				
Indigo Hiker Biker Overnight Camp				1							
Iron Mountain Hiker Biker Overnight Camp				1							
North Branch Picnic Area				1			4				
Oldtown-Battie Mixon Picnic Area				1			4				
Paw Paw Tunnel Picnic Area							4				

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Pigmans Ferry Hiker Biker Camp				1							
Potomac Forks Hiker Biker Overnight Camp				1							
Purslane Run Hiker Biker Camp				1							
Stickpile Hill Hiker Biker camp				1							
Town Creek Hiker Biker Camp				1							
Benjamin Bannecker Playground							1				
Braddock Park							6				
Centte Street Playground							1				
Constitution Park						1	100		1		
Frostburg Community Park							15		1		
Lions Park-Frostburg							8			1 H	
Mount Pleasant Recreation Area							3				
Pine Avenue Playground							1				
Ridgedale Playground							1				
Southend Recreation Area							2				
Westernport Memorial Park							10				
Westernport Downtown Park							2			1 H	22
Fort Hill Rifle and Pistol Club #2										22 H	
Little Orleans Campground and Park Area				130					1	2 H	
Rock Lodge Campgrounds				24							
South End Rod and Gun Club											200
Spring Valley Fishing Lake				31			10				

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Union Grove Camprgrounds							11				
Warrior Mountain Sportsmen's Club											74
Zilhman Ball Field							12				
Cresaptown Park							10				
Potomac Council B.S.A. Day Camp								.2		10 H	
Belle Grove Game Farm/Preseve											356
Frostburg University										1 N	
Route 36 Bikeway, Cumberland to Barrellsville										6 MB	
Total For Other Public Recreation Facilities	1	0	0	214	0	6	296	.2	4 1 oly	39 H 6 MB 49 MP 2 N 96	652
Total For Allegany County	4	5	0	522	0	12	468	2 beaches .2	4 2 oly	164 H 6 MB 49 MP 2 N 15 SM 236	53,515
Total For Maryland	11	16	625 DS 312 MS	1,667	46	35	1,727	4 beaches 1.27 600' 1 AC.	10 2 oly	281 H 25 MB 61 MP 4 N 28 ORV 56 SM 62 X 518	205,132

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

WEST VIRGINIA

Preston County

State Parks

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools	Trails miles/ type	Hunting Areas, acres
Cathedral State Park						2	20			5 H	

Other Public Recreation Facilities

Preston County 4-H Camp						2					
Kingwood Municipal Park						2	12		1	1 F	
Masontown Community Park							9				
Newburg Community Park							4				
Reedsville Park						3	18				
Rowlesburg Town Park						5	36			1 F 1.5 H	
Terra Alta Municipal Park						2	20			1.5 H	
Fellowsville Roadside Picnic						1	6				
Preston County Board of Education						1					
Brown Park							3				
Total Other Public Recreation Areas	0	0	0	0	0	16	108	0	1	2 F 3 H 5	0
Total For Preston County	0	0	0	0	0	18	128	0	1	2 F 8 H 10	0

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Monogahela County

State Forests

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Coopers Rock State Forest				25		3	200			50 H	15,000

Other Public Recreation Facilities

Chestnut Ridge Park				162	8	4	67	1	1	2 H	
Mason-Dixon Park							15				
Camp Muffly 4-H Camp						5	100		1	2 H	
White Park						1	24				
Krepps Park						1	40		2	2 H	
Marilla Park						1	45		1		
Sunorest Minipark							2				
King Street Minipark							6				
Whitemore Park										2 H	
Jerome Park/ Playground											
Riverfront Park							10			1 H	
Mea Fishing Pier							6				
Jack Roberts Park							4				
South University Avenue Park							13			3 H	
Caperton Trail										51 H	
Westover Park						1	10		1		
Osage Park							2				
Star City Park							3				
Granville Park							2				
Board of Education Rec.						3	11		1 oly		
West Virginia University						4	42		3 oly	20 H	
Total Other Public Recreation Areas	0	0	0	162	8	20	402	1	6 4 oly	83 H	0
Total For Monahela County	0	0	0	187	8	23	602	1	6 4 oly	133 H	15,000

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Tucker County

State Parks

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Black Water Falls State Park				65	25	2	300	1		25 H	
Canaan Valley State Park				34	25				2	20 H	
Canaan Valley Resort State Park				34					1	20 H	
Total State Parks for Tucker County	0	0	0	133	50	2	300	1	3	65 H	0

Monongahela National Forest

Dolly Sods Scenic Area				12						.5 H	901,000
Otter Creek Widerness Area										42 H	
Cannaan Mountain Backcountry										18 H	
Horseshoe Run Area				13		1	30			6 H	
Pheasant Mountain										8 H	
Total For Monahela National Forest	0	0	0	25	0	1	30	0	0	74.5 H	901,000

Wildlife Refugee

Canaan Valley National Wildlife Refugee										0.2 H	746 acres

Other Public Recreation Facilities

White Grass Ski Touring Center										50 km X	
Timberline Four Seasons Resort										17 km X	
Black Bear Resort					82				1	.9 F	
Camp Kidd				50							
Hampshire Park in Romney						7	75				
Central Hampshire Park						5	45				
Romney Public Swimming Pool									1		

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear*	Pools*	Trails miles/ type*	Hunting Area acres
Mount Storm Lake	1	2									
Mill Race Park in Parson						3				.2 H	
Knights of Columbus Park						1					
Red Creek Campground				8							
Total Other Public Recreation Areas	1	2	0	58	82	16	120	0	2	.9 F .2 H 1.1 67 km X	0
Total for Tucker County	1	2	0	216	132	19	450	1	5	.9 F 139.9 H 140.8 67 km X	901,746

Randolph County

State Parks

Kumbrabow State Park				13	5	1	50			14 H	9,500

Other Public Recreation Facilities

Elkin City Park						3	13				
Davis Street Park						1					
River Bend Park						2	3			.5 F	
Blue Grass Park						1					
Total Other Public Recreation Areas	0	0	0	0	0	7	16	0	0	.5 F	0
Total for Randolph County	0	0	0	13	5	8	66	0	0	.5 F 14 H 14.5	9,500

Mineral County

State Parks

Lost River State Park					24	2	50		1	25 H	

Other Public Recreation Facilities

Keyser Municipal Swimming Pool									1		

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Westend Playground - Keyser						1	15				
Eastend Playground- Keyser						1	10				
Total Other Public Recreation Areas	0	0	0	0	0	2	25	0	1	0	0
Total for Mineral County	0	0	0	0	24	4	75	0	2	25 H	0

Grant County

Other Public Recreation Facilities

City Park of Petersburg						5	75				
Welton Park						5	75				
Day Park						3	25			1 H	
Echo Park					5	4	50				
Turner Park						2	25				
Mt. Top Park						3	50				
Total Other Public Recreation Facilities	0	0	0	0	5	22	300	0	0	1 H	0
Total for Grant County	0	0	0	0	5	22	300	0	0	1 H	0

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Hardy County

George Washington National Forest

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools *	Trails miles/ type*	Hunting Areas, acres
Trout Pod				48			48				
Wolf Gap				10			10				
Total				58			58				

Other Public Recreation Facilities

City Park of Moorefield						3	30			.75 H	
J. Allen Hawkins Community Park						2	15			.5 H	
Total Other Public Recreation Facilities	0	0	0	0	0	5	45	0	0	1.25 H	0
Total For Hardy County	0	0	0	58	0	5	103	0	0	1.25 H	0

Hampshire County

George Washington National Forest

Hawk				13			13				

WV DNR Hunting and Fishing Areas

Nathaniel Mountain Hunt/Fish Area				6						21 H	8,876
Short Mountain Hunt/Fish Area				6						15 H 12 ORV	8,005
Edwards Run Hunt/Fish Area				6							400
Springfield Hunt/Fish Area											10,000
Total				18						36 H 12 ORV	27,281
Total for West Virginia	1	2	0	447	174	99	1,679	2	14 4 oly	3.4 F 358.15 H 373.55 67 km X	953,527

Pendelton County

George Washington National Forest

Brandywine				30			30				
Camp Run				9			8				
Total				39			38				

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Total for West Virginia	**1**	**2**	**0**	**447**	**174**	**99**	**1,679**	**2**	**14** **4 oly**	**3.4 F** **358.15** **H** **373.55** **67 km** **X**	**953,527**

* Marina, # slips
+ Pools
+ Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

PENNSYLVANIA

SOMERSET COUNTY

State Parks

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Kooser				45	9	1	370	350		2.5 H	
Laurel Highlands Hiking Trail										70 H	
Laurel Hill	2	2	15 MS	395		3	564	1,200		12 H 10 X	2,100
Total State Parks	2	2	15 MS	440	9	4	934	1,550	0	84.5 H 10 X 94.5	2,100

State Game Lands

#27											1,855
#111										6 H 10 SM	10,324
#231											429
#228										3 H 6.4 SM	3,462
#82											6,708
#104											2,993
#26										3 H 15 HB 15 MB 12 SM	5,209
#50										7 H 7 SM	3,157
#42											1,890
#261											3,248
Total State Game Lands	0	0	0	0	0	0	0	0	0	19 H 15 HB 15 MB 35.4 SM 84.4	39,275

Other Public Recreation Facilities

Community Center Playground Confluence Borough							1				

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, ac acres ac
Maple Valley Park & Pool Meyersdale Borough						1(400)	1		1		
Stoystown-Quemahoning Township Recreation Park							6				
J.B. Shcrock Community Park Berlin, PA							1				
Turkeyfoot Hiking Trail										5 H	
BVFD Recreation Grounds						1(1,200)	13				
Union Street Playground						1(1,350)	5				
Cannel Drive Playground						1(400)					
Salisbury Little League Park						1(40)					
Meyersdale Area School District						1(350)	6				
Shanksville Grove						1(500)	30				
Shade Center County School District										.3 H	
Hoover Field						1	3				
Windber Recreation Park						6(800)	40		1	1 H	
Shanksville-Stonycreek Recreation Park						2(2,832)	18				
Somerset Historic Center Lincoln Twshp							30			5 H	
Somerset Historic Center Somerset Twshp							15			2 H 2 X	
Forbes State Forest District #4						1	25			9 H 30 HB 30 SM 51 X	29,273
Youghiogheny Lake	2		316 MS			1	63	2(800)		1 H	370
Total Other Public Recreation Areas	2	0	316 MS	0	0	18	257	2	2	23.3 H 30 HB 30 SM 53 X 136.3	29,643
Total Somerset County	4	2	331 MS	440	9	22	1,191	2 1,550'	2	126.8 H 45 HB 15 MB 65.4 SM 63 X 315.2	71,018

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Bedford County

State Parks

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Warriors Path	1	1				2	45			3 H 6 X	30
Blue Knob				134		6	200		1	17 H	5,000
Shawnee	2	4	183 MS	300				1		12 H 11 SM	3,000
Total State Parks	3	5	183 MS	434	0	8	245	1	1	32 H 11 SM 6 X 49	8,030

State Game Lands

#97 W. Providence											7,312
#104 Londonderry											5,188
#73 Hopewell											14,742
#48 Cumberland Valley											10,807
#26 Lincoln										3 H 15 HB 15 MB 12 SM	5,208
#49 Mann										2 H	4,760
Total State Game Lands	0	0	0	0	0	0	0	0	0	5 H 15 HB 15 MB 12 SM 47	48,017

Other Public Recreation Facilities

Colerain Recreation Park Colerain Township						1(400)	15				
Snake Spring Community Park Snake Spring Township						1(1,600)	20				
Cumberland Valley Recreation Park Centerville, PA						1(4,000)	40				

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Northern Bedford Co H.S./Ele. School Loysburg, PA										1.75 H	
Hyndman Miniciple Sports Complex (S. 1st St Hyndman, PA)						1 (300)	4				
Hyndman Little League Field Rt 96-N, Hyndman, PA)						1 (400)	4				
Saxton Recreation Park Saxton, PA							1				
Mann Township Recreation Park						1 (300)	10				
New Paris Community Park							2				
Six Mile Run Community Center and Park Coaldale Borough						1 (300)	4				
Cumberland Valley Recreation Building and Park						2(3,240)	40				
Manns Choice Community Center Harrison Township										1 H	
The Greens Bedford Borough						1 (600)	1				
The Green Cameron Ave						1 (875)	2				
Engolf Park Snake Spring Valley Township						1 (500)	3				
Total Other Public Recreation Areas	0	0	0	0	0	12	146	0	0	2.75 H	0
Total Bedford County	3	5	183 MS	434	0	20	391	1	1	39.75 H 15 HB 15 MB 23 SM 6 X 98.75	56047
Total Pennsylvania	7	7	514 MS	874	9	42	1582	3 beaches 1,550'	3	166.55 H 60 HB 30 MB 88.4 SM 69 X 413.95	127065

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

Recreation Area	Boat Launch Ramps	Boat Launch Lanes	Marina, # slips*	Total Camping Sites	Cabins	Pavilions	Picnic Tables	Beaches, linear'	Pools*	Trails miles/ type*	Hunting Areas, acres
Total For Analysis Overall	19	25	625 DS 826 MS	3,085	229	176	5,084	9 beaches 2,150' 1.27 mi. 1 AC.	27 6 oly	3.4 F 805.7 H 60 HB 55 MB 61 MP 4 N 40 ORV 145.4 SM 131 X 1,305.5 67 km X	2,211,970

* Marina, # slips
* Pools
* Trails, miles/type

DS - Dry Slips MS - Mooring Slips
Oly - Olympic Size Pool
F - Fitness H - Hiking HB - Horse Back Riding MB - Mountain Bike
MP - Multi-Purpose N - Nature ORV - Off Road Vehicles SM - Snowmobile
X - Cross Country Skiing

MARYLAND

National Forest

George Washington and
Jerrerson National Forest
5162 Valleypointe Parkway
Roanoke, VA 24019
540-265-6054

State Forests

Garrett State Forest
1431 Potomac Camp Road
Oakland, MD 21550
301-334-2038

Green Ridge State Forest
28700 Headquarters Dr, NE
Flintstone, MD 21530-9525
301-478-3124

Potomac State Forest
1431 Potomac Camp Road
Oakland, MD 21550

Savage River State Forest
349 Headquarters Lane
Grantsville, MD 21536
301-895-5759

State Parks

Big Run State Park
Casselman River Bridge State Park
c/o New Germany State Park
349 Headquarters Lane
Grantsville, MD 21536
301-895-5453

Dans Mountain State Park
Water Station Run
Lonaconing, MD 21539
301-777-2139

Deep Creek State Park
898 State Park Road
Swanton, MD 21561
301-387-5563

Herrington Manor State Park
c/o Swallow Falls State Park
222 Herrington Lane
Oakland, MD 21550
301-334-9180

Rocky Gap State Park
12500 Pleasant Valley Road
Flintsone, MD 21530
301-777-2139

PENNSYLVANIA

State Forests

Buchanan State Forest
RD2, Box 3
McConnellsburg, PA 17233

Forbes State Forest
PO Box 519
Laughlintown, PA 15655

Gallitzin State Forest
131 Hillcrest Drive
Ebensburg, PA 15931

State Parks

Warrior Path State Park
Commonwealth of PA
Bureau of State Parks
Park Manager, Terry L. Wentz
RD#1, Box 211
James Creek, PA 16657
814-695-6807

PA State Game Lands
PA Game Commission

#26/261
Chief Fed-State Coor, Roger Lehman
2001 Elmerton Ave.
Harrisburg, PA 17110-9797
717-787-9612

OTHER PUBLIC RECREATION FACILITIES

Tuscarora Trail
RD1, Box 42-A,
Blain PA 17006

WEST VIRGINIA

National Forest

Monongahela National Forest/
Horseshoe Recreation Area
304-478-3251

State Forests

Coopers Rock State Forest
Al Kerns
304-594-1561

Lost River State Forest
304-897-5372

Savage River Complex
349 Headquarters Lane
Grantsville, Maryland 21536
301-895-5759

State Parks

Black Water Falls State Park
Rob Gilligan
Drawer 490
Davis, West Virginia 26260
304-259-5216

Canaan Valley State Park/Resort
Rob Gilligan
304-866-4121

Cathedral State Park
Dell Pace
304-735-3771

Fairfax Stone State Park
Rob Gilligan
304-259-5216

Kumbrabow State Park
Al Dean
304-335-2219

Rocky Gap State Park
125000 Pleasant Valley Road, NE
Flintstone, Maryland 21530-9712

Wildlife Refugee

Canaan Valley National Wildlife Refuge
304-637-7312

Edwards Run
Public Hunting and Fishing Area
WV DNR
Division of Wildlife
Charleston, WV 25305
304-822-3551

Nathaniel Mountain Wilflife Management Area
WV DNR
Wildlife Resources Section
State Capitol Complex, Builing 3
1900 Kanawha Boulevard, East
Charleston, WV 25305
304-822-3551

Short Mountain Wildlife Management Area
Wilflife Resources Division
1 Depot Road
Romney, WV 26757
304-822-3551

Springfield
Pulbic Hunting and Fishing Area
Division of Wildlife Resources
Drawer C
Romney, WV 26757
304-822-3551

Other Public Recreation Areas

Region VI, Planning and Development
Richard Wood/Kent Rollins
Executive Director
7003-C Mountain Park Drive
Fairmont, WV 26554
304-366-5693
304-367-0804 fax

Region VII, Planning and Development
Robert Coit
Executive Director
4 West Main Street
Buckhannon, WV 26201
304-472-6564
304-472-6590 fax

Region VIII, Planning and Development
Kenneth Dyche
Executive Director
Grant County Industrial Park
PO Box 849
Petersburg, WV 26847
304-257-1221
304-257-2292 fax

Grant County Parks and Recreation
Lewis Alt
Director of Parks and Recreation
5 Highland Avenue
Petersburg, WV 26847
304-257-1725
304-257-2593 fax

Hampshire County Dev. Authority
David Pancake
Executive Director
PO Box 883
Romney, WV 26757
304-822-4320

Hardy County Rural Dev. Authority
Mallie J. Combs
Executive Director
PO Box 209
Moorefield, WV 26836
304-538-6398
304538-6995 fax

Mineral County Dev. Authority
Kay Vaughan
Route 4, Box 15D
Keyser, WV 26726
304-788-3383
304-788-0481 fax

Mineral County City Park
Ken Sanders
304-788-1511

Mineral County Parks and Recreation
304-788-5732

Penelton County Dev. Authority
Gary Wilson
Coordinator of Economic and Community Development
PO Box 602
Franklin, WV 26807
304-358-7573
304-358-2473 fax

Preston County Dev. Authority
Holly Childs
Secretary
200 1/2 W Main Street
Kingwood, WV 26517
304-329-0576

Preston County Board of Education
Random 304-329-0508

Randolph County Dev. Authority
Denver Barnett
10 Eleventh Street
Elkins, WV 26241
304-637-0803
304-637-4902 fax

Randolph County Chamber of Commerce
304-636-2717

Randolph County
Parks and Recreation Department
Mr. Gainer
304-636-3960

Tucker County Dev. Authority
Ralph L. Moore
Treaser
PO Box 765
Davis, WV 26260
30-478-2866
304-478-4434 fax

Tucker County Coordinator
Tom Tuesing
304-478-2866

Tucker County Chamber of Commerce
Barbara Ellison (Secretary Kate)
304-472-6564

Tucker County Parks Authority
304-256-6702

Tucker County Parks and Recreation
304-558-2764

Tucker County CVA
PO Box 565
Davis, WV 26260
1-800-782-2775

Chestnut Ridge Park
Bryan Fluharty
304-594-1773

Camp Muffly 4-H Camp
Asel Kennedy
304-291-7201

Westover Park
Seasonal 304-296-0186
City 304-296-6860

Star City Park
304-599-3407

Granville Park
304-599-5080

Board of Education Recreation
304-291-9210

West Virginia University
Tom Pinto
304-293-5221

Preston County 4-H Camp
Tracy Waugh
304-329-1391

City of Kingwood
Kingwood Municipal Park
304-329-1225

Masontown Community Park
304-864-5551

Newburg Community Park
304-892-3341

Reedsville Park
304-864-3437

Rowlesburg Town Park
304-454-2441

Terra Alta Municipal Park
304-789-6664

Mill Race Park in Parson
Gale Bloom
304-478-2311

Camp Kidd
304-478-2710

Potomac Highlantd Outfitters
304-259-2219

Red Creek campground
304-257-4488

Holly Meadows Golf Club
304-478-3406

Timberline Four Seasons Resort
304-866-4801

White Grass Ski Touring Center
304-866-4114

Black Bear Resort
304-866-4391

Edna Harman
City of Petersburg
PO Box 669
Petersburg, WV 26847
304-257-4944

Penny Sanders
City of Keyser
111 Noth Davis Street
Keyser, WV 26726
304-788-1511

Phyllis Sherman
Town of Moorefield
Winchester Avenue
Moorefield, WV 26836
304-538-6142

John Sayers
Town of Wardensville
PO Box 7
Wardensville, WV 26851
304-874-3067

Doris Marks
Town of Carpendale
PO Box 7
Ridgeley, WV 26753
304-738-1612

Garry Buckbee
City of Romney
260 School Street
Romney, WV 26757
304-822-5118

Warren Harness
Town of Ridgeley
3 Williams Street
Ridgeley, WV 26453
304-738-9400

Gred Berderidge
Town of Capon Bridge
PO Box 183
Capon Bridge, WV 26711
304-856-3733

City of Morgantown
Board of Parks and Recreation
Jeff Berryman
304-296-8356

Preston County Commission
304-329-1805

IMPLAN
BACKGROUND INFORMATION

National and Regional Benefit Analysis

The economic benefits of implementing a new recreation plan at Jennings Randolph Lake can be divided into two categories: national economic benefits (NED) and regional economic benefits. NED benefits are primary benefits accruing tot he project as a result of increased visitation and the increased value of the recreation day (unit day value). NED benefits are used to measure the economic value of the proposed project to the national economy, and represent only a fraction of the total economic value of the project to the study area. Regional economic impacts of the proposed project are based on the estimated expenditures of visitors to the region as a result of improved access and recreation facilities Typical expenditures are estimated by recreation group (i.e., Non-resident-camper-boat user) for each party visit. A party visit is not the same as annual visitors. A party visit is defined as a typical group recreating for a specific period of time. For example: a typical camping party is estimated to consist of an average of 3.4 people and lasts approximately 2.8 days. A summary of NED and regional benefits are presented in this section.

Definitions:

Economic Activity: The market structure of the two county area determines the economic activity in that area. Economic activity is the total value of goods and services produced in that area. The value of that production is equal to total sales in the area less the purchases from outside the area. If a sandwich is purchased for $1.00 from a restaurant and the restaurant purchased the ingredients outside the area for $0.40, then only the $0.60 of the value of the sandwich was produced in the area. The other $0.40 of value was imported from another area. The economic activity associated with the purchase of that sandwich is $0.60 although $1.00 was spent. Therefore the economic activity of the area is determined by both the demand for goods and services purchased in the market and the supply of goods and services that can be produced in the market without imports.

Economic Impacts: Economic impacts are associated with a change in total demand or supply in the study region. Non-resident spending as a source of income will change the level of demand in the study area. In effect, an increase in non-resident spending transfers demand from another region to the study area. However, shifts in demand within the study area will not have any economic impacts.

Changes in demand and supply equate to changes in the economic activity of the study area. The value of economic activity is equal to the total sales less purchases from outside their area. Therefore, a change in the amount of sales in the area would equal the change in economic activity in that area. A non-resident visitor who purchases a sandwich from within the study area has a positive economic impact to that region, however, the dollar spent within the study area is a negative economic impact to the visitor's own area of residence. Therefore the net economic impact to the national economy is zero. Similarly, if a resident of the study area purchases a sandwich, the positive and negative impacts of the purchase will both be included within the study boundaries. Therefore, the net economic impact to the study area will be zero. The economic impacts presented in

this analysis will be zero. The economic impacts presented in this analysis are regional impacts, that in the increase experience in the region from expenditures by visitors from outside the area.

Recreation Benefits: Participation in recreation provides a benefit to participants. The value of that recreation experience to those participants can be estimated using various methods. These methods attempt to estimate how much a participant would be willing to pay for the recreation experience. The travel cost method assumes "willingness to pay" is at least equal to the time cost of resources required for the trip to the recreation area. The contingent value method relies on surveys of the general population to determine what fee people would be willing to pay if a fee were required. The unit day value method uses a table of values for various activities to assign a monetary level to a user day.

NED Benefits

The current condition and selected plan were the two plans analyzed for the NED plan. Each scenario utilizes a different visitation and unit day value. The existing condition has an estimated annual visitation rate of 76,000. The selected improved plan is estimated to have a projected visitation rate of 118,500, which is an increase in visitation of 56 percent. Using methods from the Principles and Guidelines ER 1105-2-100, Chapter 6 (Recreation), unit-day value points were assigned for each of the plans, based on the following criteria: recreation experience, availability of opportunity, carrying capacity, accessibility, and environmental quality. **Table A_** is taken from the Planning an Guidance Notebook and lists the guidelines for assigning points for general recreation. Recreation points are then converted to dollar values, using the annual Economic Guidance Memorandum for FY 97 to be used with unit day values. **Table B** is a copy of the conversion table from the cited guidance.

Benefits are derived by multiplying the visitation rate for each plan by the dollar value associated with unit day value points for each plan, and then subtracting the product associated with the improved or "with project" condition from the product associated with the existing condition. The number of unit day value points assigned to the existing plan are 64. This number was derived from the compilation of results of a recreation survey administered at Jennings Randolph Lake in July 1996. A unit day point value of 64 equates to a value of $6.00 per visitor day. Therefore the NED value associated with the existing condition is $6.00 X 76,000 (visitors), or $456,000. **Points for the selected improved project were not assigned at the time this report went to review. The points and corresponding dollar value will be assigned and multiplied by the visitor days of 118,500 to estimate an NED value associated with the improved condition., and the NED benefits accruing to the proposed project.**

TABLE D - 8

Guidelines for Assigning Points for General Recreation

Criteria	Judgement factors				
(a) Recreation experience[1]	Two general activities[2]	Several general activities	Several general activities; one high quality value activity[3]	Several general activities; more than one high quality high activity	Numerous high quality value activities; some general activities
Total Points: 30 Point value:	0-4	5-10	11-16	17-23	24-30
(b) Availability of opportunity[4]	Several within 1 hr. travel time; a few within 30 min. travel time	Several within 1 hr. travel time; none within 30 min. travel time	One or two within 1 hr. time; none within 45 min. travel time	None within 1 hr. travel time	None within 2 hr. travel time
Total points: 18 Point value:	0-3	4-6	7-10	11-14	15-18
(c) Carrying capacity[5]	Minimum facility for development for public health and safety	Basic facility to conduct activity(ies)	Adequate facilities to conduct without deterioration of the resource or activity experience	Optimum facilities to conduct activity at site potential	Ultimate facilities to achieve intent of selected alternative
Total points: 14 Point value:	0-2	3-5	6-8	9-11	12-14
(d) Accessibility	Limited access by any means to site or within site	Fair access, poor quality roads to site; limited access within site	Fair access, fair road to site; fair access; good roads within site	Good access, good roads to site; fair access, good roads within site	Good access, high standard road to site; good access within site
Total points: 18 Point value:	0-3	4-6	7-10	11-14	15-18
(e) Environmental	Low esthetic factors[6] that that significantly lower quality[7]	Average esthetic quality; factors exist that lower quality to minor degree	Above average esthetic quality; any limiting factors can be reasonably rectified	High esthetic quality; no factors exist that lower quality	Outstanding esthetic quality; no factors exist that lower quality
Total points: 20 Point value:	0-2	3-6	7-10	11-15	16-20

[1] Value for water-oriented activities should be adjusted if significant seasonal water level changes occur.
[2] General activities include those that are common to the region and that are usually of normal quality. This includes picnicking, camping, hiking, riding, cycling, and fishing and hunting of normal quality.
[3] High quality value activities include those that are not common to the region and/or Nation and that are usually of high quality.
[4] Likelihood of success at fishing and hunting.
[5] Value should be adjusted for overuse.
[6] Major esthetic qualities to be considered include geology and topography, water, and vegetation.
[7] Factors to be considered to lowering quality include air and water pollution, pests, poor climate, and unsightly adjacent areas.

Revised Table 6-28 (FY 97)
Conversion of Points to Dollar Values
(See ER 1105-2-100, Chapter 6,
Section VIII, for Table 6-29 and 6-30)

Point Values	General Recreation Values (1)	General Fishing and Hunting Values (1)	Specialized Fishing and Hunting Values (2)	Specialized Recreation Values other than Fishing and Hunting (2)
0	$2.52	$3.62	$17.63	$10.23
10	2.99	4.09	18.11	10.86
20	3.31	4.41	18.42	11.65
30	3.78	4.88	18.89	12.60
40	4.72	5.35	19.37	13.38
50	5.35	5.83	21.26	15.12
60	5.83	6.46	23.15	16.69
70	6.14	6.77	24.56	20.15
80	6.77	7.24	26.45	23.46
90	7.24	7.40	28.34	26.77
100	7.56	7.56	29.92	29.92

(1) Points from Table 6-29
(2) Points from Table 6-30

Regional Economic Impacts of Jennings Randolph Lake

While the maximum NED benefit is $6.00/day this value represents what the recreationers would be willing to pay for their recreation experience and not what they actually pay on a typical visit. The economic impacts from visitation are measured as the estimated expenditures made in the service area immediately surrounding the project area. The area within 30 miles of the project is considered to be the market area which will receive the regional economic impacts associated with the improved recreation conditions at the Lake.

Study Area : The market area consists of two counties which are contiguous to Jennings Randolph Lake: Garret County in Maryland and Mineral County in West Virginia. These two counties have a combined projected population for the year 2000 of 108,150.

Methodology : The software package IMPLAN, along with spending and visitation data from Jennings Randolph Lake, were used to calculate the value of economic activity in the two county study area, the economic activity contributed by Jennings Randolph Lake, and the economic impacts of visitation to Jennings Randolph Lake. IMPLAN was developed by the United States Department of Agriculture Forest Service specifically for estimating impacts of forestry management on local economies. The model contains information about market structure and industry interrelationships in each county in the US This data was developed by the University of Minnesota using data from various sources, including the Department of Labor Statistics and the Commerce Department.

The University of Minnesota and the United States Army Corps of Engineers, Waterways Experiment Station (WES) in Vicksburg, Mississippi, developed the recreation module for IMPLAN. Spending patterns of visitors to Jennings Randolph Lake were based on similar Corps of Engineers recreation projects, through interviews conducted by WES in 1991. Visitors were grouped into two visitor types: local residents and non-residents. These visitor types were then broken down into three recreation groups: day users, campers and other overnight users. These recreation groups were broken down further into two subgroups: with boat and without boat. The spending patterns of the interviewed visitors were aggregated and averaged according to these groupings (see **Table C**). The spending patterns identified were used to estimate the economic impacts of visitation within the study area.

Baseline Economic Conditions

Total Economic Activity. **Table D** shows the baseline market structure of the study region. Through these interrelationships, industries, demand and supply each other inputs and outputs. An industry that cannot obtain the inputs needed must purchase them from outside the region which acts as a leakage from the local region.

Total economic activity for the study region is $1. 1 billion which supports 23 thousand jobs. Construction is the largest sector of the economy, contributing $176 million to the

Table 1. Spending by Segment Within 30 Miles of the L PARTY TRIP 12LAKE TOTAL 1993

					SEGMENT								AVG PER	TOTAL	PCT
CATEGORY	R/D/B	R/D/NB	R/C/B	R/C/NB	R/O/B	R/O/NB	NR/D/B	NR/D/NB	NR/C/B	NR/C/NB	NR/O/B	NR/O/NB	UNIT	($000's)	
hotel motel	0.00	0.00	1.46	0.97	68.75	56.83	0.00	0.00	10.84	4.41	206.55	107.35	34.30	499	29.8%
camping fees	0.00	0.00	25.40	19.29	7.19	1.86	0.00	0.00	32.40	23.08	6.08	6.36	4.54	66	3.9%
grocery	[illegible]	7.23	62.73	39.65	57.30	26.40	7.04	6.82	43.68	37.21	53.57	16.03	15.81	230	13.7%
restaurant	[illegible]	2.86	5.46	6.46	49.59	28.54	4.46	12.37	18.70	15.91	49.78	39.22	19.39	282	16.8%
auto gas & o	8.81	4.32	20.88	14.26	16.80	10.12	5.64	4.68	21.24	22.00	25.07	15.36	9.79	142	8.5%
auto rental	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	1.54	0.00	0.14	2	0.1%
auto repair	0.43	0.12	0.43	2.31	0.00	0.26	0.24	0.83	1.03	4.34	0.97	0.02	0.78	11	0.7%
tires	1.74	1.41	0.00	9.95	0.00	0.00	0.00	0.00	0.99	3.55	0.25	11.88	1.92	28	1.7%
auto parts	0.28	0.00	0.88	1.45	0.44	0.00	0.00	0.00	0.89	6.24	0.77	0.04	0.30	4	0.3%
parking & to	0.43	0.24	0.28	1.07	3.83	0.26	0.21	0.18	1.22	0.71	0.49	0.27	0.32	5	0.3%
boat gas	10.53	0.00	19.27	0.00	33.41	0.00	6.76	0.00	28.27	0.00	41.89	0.00	6.35	92	5.5%
boat rental	0.40	0.00	1.03	0.00	13.89	0.00	0.90	0.00	3.70	0.00	11.66	0.00	1.36	20	1.2%
boat repair	4.83	0.00	3.30	0.00	17.51	0.00	0.11	0.00	8.85	0.00	8.23	0.00	1.40	20	1.2%
boat parts	5.80	0.00	2.25	0.00	5.66	0.00	1.53	0.00	3.82	0.00	5.07	0.00	0.86	13	0.7%
launch slip	2.74	0.00	2.16	0.00	0.55	0.00	0.00	0.00	1.92	0.00	8.74	0.00	0.90	13	0.8%
boat fares	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.17	0.00	0.02	0	0.0%
fish license	0.13	0.08	0.11	0.18	0.68	0.00	0.55	0.00	1.65	0.32	2.97	1.42	0.64	9	0.6%
charter fees	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.24	0.09	1	0.1%
fish bait	1.45	0.96	5.79	1.49	4.46	2.92	1.04	0.11	3.82	1.79	5.99	1.03	1.16	17	1.0%
hunt license	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0%
ammunition	0.41	0.26	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.36	7.54	1.13	16	1.0%
equip rental	0.23	0.91	0.00	0.00	1.20	3.50	0.21	0.00	0.34	0.23	3.73	2.16	0.68	10	0.6%
guide fees	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	1.25	3.48	0.62	9	0.5%
sport adm.	0.07	0.07	0.00	0.00	0.53	0.56	0.00	0.03	0.12	0.23	0.17	0.08	0.06	1	0.1%
tourist attr	0.29	0.38	0.68	0.54	0.42	3.70	0.68	0.37	1.30	5.01	2.93	1.19	0.92	13	0.8%
recreation a	1.64	0.90	0.27	2.41	1.34	3.24	0.00	0.00	1.67	1.88	3.50	2.75	0.88	13	0.8%
film	0.89	0.91	2.84	2.03	2.66	4.64	0.34	0.37	2.79	1.47	2.65	1.58	0.95	14	0.8%
film develop	0.59	0.62	2.49	1.65	2.08	3.68	0.06	0.26	0.77	1.00	0.90	0.23	0.35	5	0.3%
souvenirs	0.08	0.55	0.44	0.84	2.54	0.00	0.29	0.03	3.82	2.92	6.94	5.37	1.79	26	1.6%
[illegible]	1.34	[illegible]	2.65	1.51	1.46	0.00	0.00	1.17	1.05	2.79	2.84	0.00	1.07	16	0.9%
men's clothi	1.88	[illegible]	2.53	0.50	0.97	0.00	0.18	1.84	2.27	1.65	2.71	0.89	1.66	24	1.4%
women's clot	1.85	[illegible]	3.83	2.82	3.96	6.56	0.00	1.75	3.76	2.17	4.70	1.50	1.98	29	1.7%
other	[illegible]	[illegible]	[illegible]	19.21	33.08	6.25	0.32	1.35	7.91	4.37	5.44	7.21	3.05	44	2.6%
TOTAL	[illegible]	[illegible]	[illegible]	128.61	330.46	159.30	30.57	32.16	208.87	144.03	468.48	233.18	115.22	1,676	100%

•JRFINAL $MM 1993
Base Year Information

Impact Report #901A
7/11/97

	Industry	Final Demand (MM$)	TIO (MM$)	Employee Comp Income (MM$)	Property Income (MM$)	Total PoW Income (MM$)	Total Value Added (MM$)	Employment (Number of Jobs)
1	AG, FOR & FISH	41.7472	46.6018	5.1966	22.9594	28.156	28.8247	1320
37	MINING	59.6258	62.8768	22.5289	13.8733	36.4022	40.5093	424
48	CONSTRUCTION	176.4242	224.4422	39.7689	34.8477	74.6168	76.1477	2350
69	FOOD PROCESSING	13.9397	14.4631	1.7881	2.6018	4.3899	4.6036	100
124	APPAREL	33.1099	33.9165	9.393	4.0576	13.4506	13.6352	571
133	MANUFACTURING	188.356	218.6342	65.5361	28.5321	94.068	98.395	2251
433	TRANSP. & COMMUNIC	59.368	93.3447	34.2241	14.3627	48.5867	52.1347	1080
443	OTHER SERVICES	140.5659	173.096	68.9767	36.0652	105.0411	107.59	4292
447	Wholesale Trade	14.6598	22.9524	11.3794	3.1785	14.5579	21.0574	593
448	RETAIL	70.0052	74.2085	37.2051	12.6197	49.8249	61.6835	2908
454	Eating & Drinking	23.4767	24.3038	8.5144	1.9717	10.4861	11.7673	1035
456	F.I.R.E	169.1023	197.3952	23.9609	60.2772	84.2381	106.1124	1199
463	Hotels And Lodging Places	21.8527	25.5356	9.5731	8.9468	18.52	21.3719	745
477	AUTO SERVICES	14.8975	20.6888	2.0972	3.3626	5.4598	5.7411	192
483	OTHER AMUSEMENTS	2.9124	4.6848	0.7032	0.9175	1.6208	1.7301	112
488	Amusement And Recreation	3.1984	3.204	1.0805	1.2275	2.308	2.3936	110
510	GOV'T & OTHER	89.1973	93.7736	87.3141	-0.7289	86.5852	86.5898	3464
	Total	1122.439	1334.122	429.2403	249.0724	678.312	740.2873	22746
	Population = 56300.							

regional economy. Finance, insurance and real estate contribute 169 million and other services contribute $140 million to the regional economy. Sectors of the economy that would generate most of their revenue from recreation include Retail Trade, Eating and Drinking, Hotels and Lodging Places, Amusement and Recreation and Other Amusements. These sectors account for 120 million, or 11 percent of the total economy.

Current Visitation: Of the 76,000 visits to Jennings Randolph Lake, approximately 87 percent are day users. The remaining 13 percent are either campers or other overnight visitors. Visits broken down by segments for residents versus non-residents, day versus overnight, and boating activity, are shown in **Table E. Table E** expresses visitation in the form of party visits. A party visit consists of an average 2.8 visitors for day use and 3.2 visitors for overnight use per group or party. It is necessary to convert visitation to party visits because visitor spending profiles use party visits, rather than visits or visitors as inputs. The 76,000 visitor days equates to 26,804 party trips.

Visitor Spending: Spending profiles were developed by WES fore each of these segments, as shown in Table C. This table shows the complete spending profiles by segment.

Economic Impacts. During the 76,000 visits to Jennings Randolph Lake per year, approximately $1,500,000 is spent (see **Table F**). Annual spending is calculated by using the spending profiles in **Table C** with the visitation shown in **Table E.** This spending is responsible for about $850,000 in direct effects and $670,000 in induced effects. Spending by residents accounts for 57 percent of the economic activity. Since resident spending does not contribute to the economic impact of the area, the remaining 43 percent, or $660,000, is the economic impact of visitor spending, as shown in **Table G.**

The economic impact of $660,000 is the total value of resources used to supply those goods and services purchased. Therefore economic impacts can also be measured in the quantity of resources used instead of the value of these resources. Part of the $660,000 of value comes from the resource of labor. The amount of labor needed to supply the goods and services demanded is equal to 21 full time equivalent jobs. A full time job is a measurement of labor equivalent to 2,000 hours of labor.

Various sectors of the economy are impacted differently by visitor spending. The largest portion of visitor expenditures is on food, lodging, and amusement, resulting in the greatest impacts to these sectors of the economy. The Eating and Drinking establishment sector receives the greatest impact, with a value of approximately $150,000. Hotel and Lodging and Amusement and Recreation sectors have impacts of $114,000 and $20,300. Two other sectors that appear to have measurable impacts are the Retail sector, with $110,000 in impacts and Other Services with impacts of $90,600.

Economic Conditions - Proposed Plan

Visitation: The proposed plan for Jennings Randolph Lake (as presented in Chapter 8) will increase the availability of recreation activities for the lake area. The plan includes

6. FINAL RESULTS : ESTIMATE OF PARTY VISITS BY 12 SEGMENTS

	Party Visits		Percents	
	Gp. Total	Subgp.	Gp. Total	Subgp.
Local Residents				
Day Users	14,643		55%	
No Boat		10,309		38%
Boat		4,334		16%
Campers	1,663		6%	
No Boat		1,187		4%
Boat		475		2%
Other Overnight	537		2%	
No Boat		269		1%
Boat		269		1%
Non-residents				
Day Users	8,711		32%	
No Boat		7,073		26%
Boat		1,638		6%
Campers	713		3%	
No Boat		475		2%
Boat		237		1%
Other Overnight	537		2%	
No Boat		269		1%
Boat		269		1%
Total Party Visits	26,804		100%	100%

• JRFNL_E $MM 1993
Scenario JRFNL_EN: Total Effects

Impact Report #906
7/14/97

	Industry	Final Demand (MM$)	TIO (MM$)	Employee Comp Income (MM$)	Property Income (MM$)	Total PoW Income (MM$)	Total Value Added (MM$)	Employment (Number of Jobs)
1	AG, FOR & FISH	0.0071	0.0093	0.0017	0.0047	0.0062	0.0065	0.45
37	MINING	0	0.0003	0.0001	0.0001	0.0002	0.0002	0
48	CONSTRUCTION	0	0.0286	0.0056	0.0045	0.0102	0.0104	0.3
69	FOOD PROCESSING	0.0084	0.0101	0.0022	0.0025	0.0047	0.0049	0.11
124	APPAREL	0.0066	0.0068	0.0019	0.0008	0.0027	0.0027	0.11
133	MANUFACTURING	0.0053	0.0097	0.0023	0.0014	0.0036	0.004	0.13
433	TRANSP. & COMMUNIC	0.0176	0.0306	0.0083	0.005	0.0134	0.0147	0.36
443	OTHER SERVICES	0.0962	0.1113	0.0445	0.0252	0.0697	0.0719	2.65
447	Wholesale Trade	0.0233	0.0263	0.013	0.0036	0.0167	0.0241	0.68
448	RETAIL	0.1105	0.1113	0.0546	0.0193	0.0739	0.092	4.49
454	Eating & Drinking	0.1501	0.1505	0.0527	0.0122	0.0649	0.0729	6.41
456	F.I.R.E	0.0683	0.0821	0.0069	0.0322	0.039	0.052	0.41
463	Hotels And Lodging Places	0.114	0.1151	0.0432	0.0403	0.0835	0.0963	3.36
477	AUTO SERVICES	0.0219	0.0236	0.0025	0.0041	0.0068	0.0071	0.24
483	OTHER AMUSEMENTS	0.0037	0.0052	0.0009	0.0011	0.0021	0.0022	0.13
488	Amusement And Recreation	0.0201	0.0201	0.0068	0.0077	0.0145	0.015	0.69
510	GOV'T & OTHER	0.0088	0.0113	0.0051	0.0021	0.0072	0.0072	0.22
	Total	0.6619	0.7522	0.2523	0.1668	0.4193	0.4841	20.74
	Change in Population =	51						

increasing the number of campsites and cabins 20, and other lodging by 100 rooms, picnic tables by 20, marina slips by 50. The annual visitation that corresponds with the proposed plan is projected to be 118,500 visitor days per year or 41,563 party trips

The proposed plan will moderately increase the number of lodging available, excluding camping at Jennings Randolph Lake. It is assumed that the increase of 100 rooms at the lake will impact the "other overnight" users such that the current other overnight use will increase from 4 percent of non-camping users to 10 percent. Since the proposed plan does not impact any other user group in a way that would change their percentage of overall visitation, no other changes from the baseline condition will occur. (see **Table H**)

Visitor Spending: Although the other overnight group of visitors is a small group by percentage of overall visitors, this group spends more money per party group than the other two groups. This group also has the highest percentage of non-resident recreation visitation and generates most of the economic impacts to the area.

Economic Impacts - Proposed Plan The estimated increase to visitation expected with the proposed plan is 42,500 for a total of 118,500. This increase in visitation will result in an economic impact from both resident and non-resident sectors of approximately $3,500,000 (see **Table I** -Total effects , Final Demand), an increase of $2,000,000 from the existing condition. However, non-resident spending is used to measure the overall impacts of visitor spending within the study area of Jennings Randolph Lake. This increase in visitation will result in non-resident spending impacts of $2,000,000. (see **Table J** - Non-Resident- Total Effects-Final Demand) Approximately 63 full-time equivalent jobs will be needed to supply the labor necessary to produce these goods and services Based on visitor spending patterns, the Hotel and Lodging,, with impacts of $573,000, Eating and Drinking with impacts of $342,000, Retail Trade with impacts of $300,000 and Other services with impacts of $290,000 are the sectors that would be most affected by the proposed plan. These combined sectors would receive 75 percent of the annual $2,000,000 economic impacts in the area.

6. FINAL RESULTS : ESTIMATE OF PARTY VISITS BY 12 SEGMENTS

	Party Visits		Percents	
	Gp. Total	Subgp.	Gp. Total	Subgp.
Local Residents				
Day Users	23,614		57%	
No Boat		15,184		37%
Boat		8,430		20%
Campers	2,580		6%	
No Boat		1,842		4%
Boat		738		2%
Other Overnight	840		2%	
No Boat		420		1%
Boat		420		1%
Non-residents				
Day Users	9,692		23%	
No Boat		8,432		20%
Boat		1,260		3%
Campers	1,476		4%	
No Boat		1,107		3%
Boat		369		1%
Other Overnight	3,361		8%	
No Boat		1,260		3%
Boat		2,100		5%
Total Party Visits	41,563		100%	100%

• JRFNL_F $MM 1993

Impact Report #906
7/14/97

Scenario JRFNL_FA: Total Effects

	Industry	Final Demand (MM$)	TIO (MM$)	Employee Comp Income (MM$)	Property Income (MM$)	Total PoW Income (MM$)	Total Value Added (MM$)	Employment (Number of Jobs)
1	AG, FOR & FISH	0.0501	0.06	0.0099	0.0291	0.039	0.0396	3.37
37	MINING	0.0001	0.0015	0.0005	0.0003	0.0009	0.001	0.01
48	CONSTRUCTION	0	0.1504	0.0298	0.0236	0.0535	0.0547	1.54
69	FOOD PROCESSING	0.0465	0.0523	0.0114	0.0131	0.0246	0.0256	0.56
124	APPAREL	0.031	0.032	0.0089	0.0038	0.0127	0.0129	0.54
133	MANUFACTURING	0.0663	0.0884	0.0196	0.0107	0.0304	0.0316	1.19
433	TRANSP. & COMMUNIC	0.1173	0.1882	0.0498	0.0286	0.0786	0.0855	2.13
443	OTHER SERVICES	0.5096	0.5885	0.2347	0.1321	0.3668	0.3765	14.08
447	Wholesale Trade	0.1371	0.151	0.0749	0.0209	0.0958	0.1385	3.9
448	RETAIL	0.6771	0.6811	0.3326	0.1194	0.4517	0.5622	27.63
454	Eating & Drinking	0.5001	0.5021	0.1759	0.0407	0.2166	0.2431	21.38
456	F.I.R.E	0.3537	0.4239	0.0357	0.1663	0.2019	0.2682	2.12
463	Hotels And Lodging Places	0.6937	0.6998	0.2623	0.2452	0.5075	0.5857	20.42
477	AUTO SERVICES	0.0949	0.1043	0.0113	0.018	0.0295	0.0309	1.04
483	OTHER AMUSEMENTS	0.0165	0.0239	0.0039	0.0051	0.0087	0.0095	0.6
488	Amusement And Recreation	0.142	0.1421	0.0479	0.0544	0.1023	0.1061	4.88
510	GOV'T & OTHER	0.045	0.0587	0.0273	0.0106	0.0378	0.0378	1.16
	Total	3.481	3.9482	1.3364	0.9219	2.2583	2.6094	106.55
	Change in Population =	264						

• JRFNL_F $MM 1993
Scenario JRFNL_FN: Total Effects

Impact Report #906
7/14/97

	Industry	Final Demand (MM$)	TIO (MM$)	Employee Comp Income (MM$)	Property Income (MM$)	Total PoW Income (MM$)	Total Value Added (MM$)	Employment (Number of Jobs)
1	AG, FOR & FISH	0.0198	0.0258	0.0047	0.0127	0.0174	0.0177	1.25
37	MINING	0.0001	0.0009	0.0003	0.0002	0.0005	0.0006	0.01
48	CONSTRUCTION	0	0.0903	0.0179	0.0143	0.0321	0.0328	0.92
69	FOOD PROCESSING	0.0208	0.0245	0.0053	0.0062	0.0115	0.012	0.27
124	APPAREL	0.0153	0.0159	0.0044	0.0019	0.0063	0.0064	0.27
133	MANUFACTURING	0.0218	0.0341	0.0086	0.0046	0.013	0.0133	0.48
433	TRANSP. & COMMUNIC	0.0558	0.094	0.0254	0.0153	0.0408	0.0443	1.07
443	OTHER SERVICES	0.2896	0.3346	0.1357	0.0758	0.2113	0.2168	7.88
447	Wholesale Trade	0.0612	0.0693	0.0344	0.0096	0.044	0.0636	1.79
448	RETAIL	0.3007	0.303	0.1484	0.0528	0.2011	0.2505	12.21
454	Eating & Drinking	0.3423	0.3434	0.1203	0.0279	0.1481	0.1662	14.62
456	F.I.R.E	0.2079	0.2486	0.021	0.0973	0.1184	0.1573	1.25
463	Hotels And Lodging Places	0.5735	0.5769	0.2163	0.2021	0.4184	0.4828	16.83
477	AUTO SERVICES	0.0501	0.0552	0.006	0.0095	0.0155	0.0162	0.55
483	OTHER AMUSEMENTS	0.0098	0.014	0.0022	0.0029	0.005	0.0054	0.34
488	Amusement And Recreation	0.0681	0.0681	0.023	0.0261	0.0491	0.0509	2.34
510	GOV'T & OTHER	0.0256	0.0335	0.0157	0.0059	0.0215	0.0216	0.67
	Total	2.0624	2.3321	0.7896	0.5651	1.354	1.5584	62.75
	Change in Population =	155						

Plan Selection Matrix

Site	Element	Environmental Impacts	Infrastructure Needs	Public/ Institutional Support	Direct Economic Benefit	Sponsor Availability	Operations	Raw Score	Weighted Score
RWC Campground (General)	Outdoor Recreation Area (Volleyball, Tennis, Basketball, Horseshoe Pits, Miniature Golf)	4	5	2	0	3	4	18	48
	Recreation Center/Game Room	3	5	2	3	1	5	19	50
	Wading Pool	3	5	1	4	1	5	19	51
	Extend Sunset Trail	4	5	3	0	3	4	19	52
	Laundry Facilities	3	5	2	4	1	5	20	55
	Enlarge Existing Bathhouse	4	5	3	1	3	5	21	58
	Equipment Rentals	5	5	3	3	1	5	22	62
	Swimming Pool/Bathouse	3	5	5	4	1	5	23	67
	Camper and Boat Storage	4	5	3	5	1	5	23	68
	Camp Store	3	5	5	5	1	5	24	72
Back Loop Campground	Playground Designed for Small Children	5	5	3	0	3	4	20	56
	Convert Vault to Flush/Potable Water/Showers	4	5	5	2	3	4	23	70
Borrow Area	Golf Course and Amenities	1	4	1	5	1	5	17	47
	Extend Sunset Trail to Visitor Center	4	5	3	0	3	3	18	51
	Lodge (centrally located with Cabins)	1	4	1	5	2	5	18	52
	Group Camping Area (tent platforms)	5	4	3	3	1	5	21	61
	Efficiency Cabins	2	4	3	5	2	5	21	64
Picnic Area	Trail from Picnic Area to WV Overlook	4	5	3	0	3	3	18	51
	Fishing Pier	4	5	3	0	3	3	18	51
	Canoe/kayak Launch (non-power boats)	4	5	1	3	2	3	18	53
	Fishing Access Points along Trail	5	5	3	0	3	3	19	55
	Path from Picnic Area to Shoreline	5	5	3	0	3	4	20	56
	Call box/Telephone	4	4	4	0	3	5	20	56
	Potable Water	4	3	5	1	3	3	19	62
	Upgrade Vault Toilets to Flush Toilets	4	3	5	1	3	3	19	62
	Enlarge Picnic Shelter	5	5	2	2	3	5	22	63
	Beach/Swimming Area	3	5	5	4	2	3	22	70
	New Picnic Shelter	5	5	2	4	3	4	23	72
Deep Run (new rec area)	Picnic Area adjacent to Boat Launch	2	2	1	0	1	1	7	20
	Water-Ski Slalom Course	5	5	1	0	1	1	13	35
	Jet Ski Slalom Course	5	5	1	0	1	1	13	35
	Boat Launch for non-power Boats and Jet Skis	2	2	1	3	1	1	10	35
	Canoe Trail along WV shoreline (upstream)	5	5	2	0	2	3	17	46
Howell Run Boat Launch	Trail from Boat Launch to Picnic Area	4	5	3	0	3	3	18	51
	Telephone/Call Box	3	4	5	0	3	5	20	56
	Potable Water	3	3	5	1	3	3	18	58
	Upgrade Vault Toilets	3	3	5	1	3	3	18	58
	New Overhead Lighting	3	4	5	1	3	4	20	60
Peninsula A (new rec area)	Boat-to-Shore Picnic Area/Boat Mooring	3	5	2	0	1	1	12	31
	Trail to Lake	4	5	2	0	1	1	13	35
	Picnic Areas along Rt 46	4	4	3	0	1	1	13	38
Hogback Ridge (new rec area)	Observation Tower	2	3	1	0	1	1	8	21
	Parking Area at Trailhead	2	3	1	0	1	1	8	21
	Equestrian Trails	2	4	1	0	1	1	9	22
	Boat-to-Shore Picnic Area/Boat Mooring	3	5	2	0	1	1	12	31
	Swim Floating Pier/Mooring Area/Water Slide	5	5	3	0	1	1	15	43
	Shooting/Archery Range	1	0	1	5	1	5	13	43

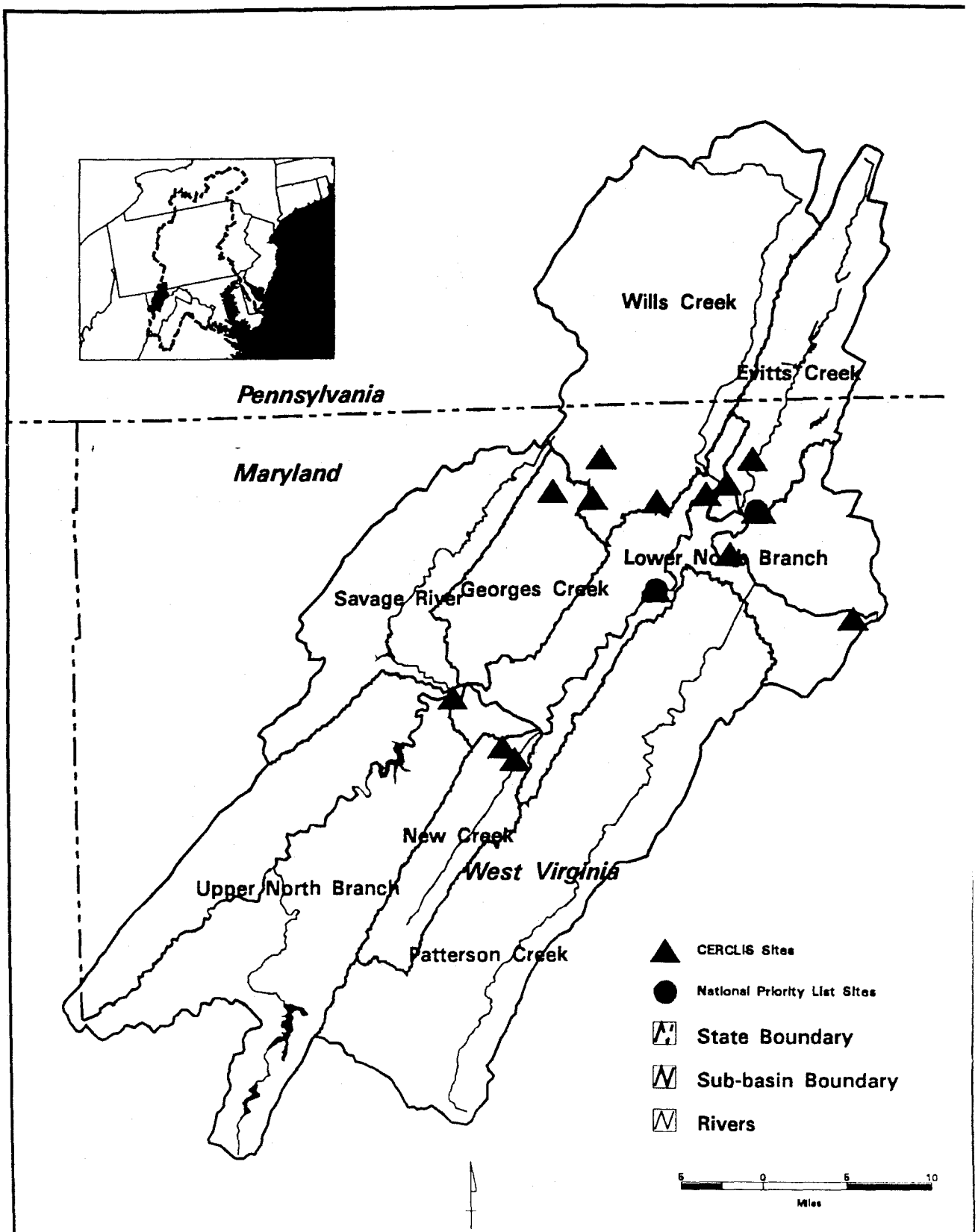
Plan Selection Matrix

Site	Element	Environmental Impacts	Infrastructure Needs	Public/ Institutional Support	Direct Economic Benefit	Sponsor Availability	Operations	Raw Score	Weighted Score
	Campground	1	0	4	4	2	5	16	55
	Beach/Swimming Area	1	0	5	4	2	5	17	59
	Lodge/Conference Center	1	0	4	5	4	5	19	70
	Cabins	1	0	4	5	4	5	19	70
	Medium-sized Marina	1	0	4	5	4	5	19	70
Peninsula B (new rec area)	Beach/Swim Area (boat-to only)	3	4	1	3	1	1	13	41
	Boat-to-Shore Camping Area/Boat Mooring	3	2	2	3	1	1	12	43
MD Boat Launch	Fishing Pier	5	5	4	0	1	5	20	51
	Campground	3	5	3	4	1	5	21	59
	Cabins	2	5	3	5	1	5	21	60
	Medium-sized Marina	2	5	3	5	1	5	21	60
Backwater Area (new rec a	Boat-to-Shore Camping Area/Boat Mooring	3	3	2	3	1	1	13	44
Barnum/Downstream	Recreation Areas and Parking	2	3	1	3	1	5	15	40
	Foot Bridges across River	4	5	3	0	1	5	18	43
	Canoe Trail (downstream)	5	5	3	0	1	5	19	47
	Rustic Cabins	5	5	5	4	5	5	27	87
Miscellaneous	Water Taxi	4	3	1	4	1	5	18	53
	Hunting Blinds/Tree stands	5	5	3	0	3	4	20	56
	Boat Rental	3	3	2	5	1	5	19	58
	Fish Attractors	5	5	5	0	3	4	22	64

Largest Value:	87
Smallest Value:	20
Average Value:	52.3
Median Value:	55
Std. Dev.:	13.7

Medium Priority:	73 to 60
Low Priority:	Below 60

MISCELLANEOUS MAPS

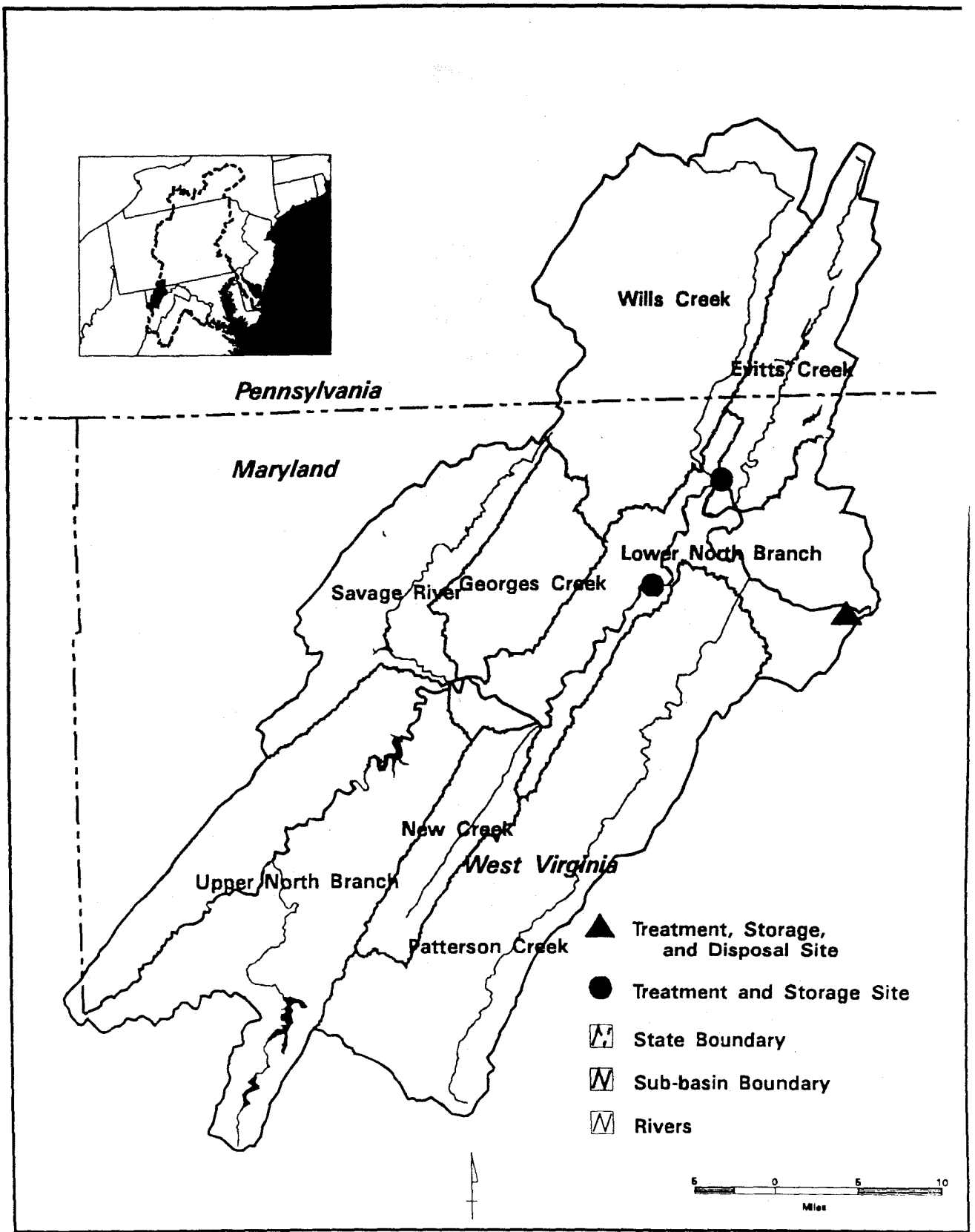


US Army Corps of Engineers
Baltimore District

North Branch Potomac River CERCLIS Sites and National Priority List Sites

Figure 2-3

/ARCINFO/DATABASE/NB_POTOMAC/MAPS/CERC.MAP



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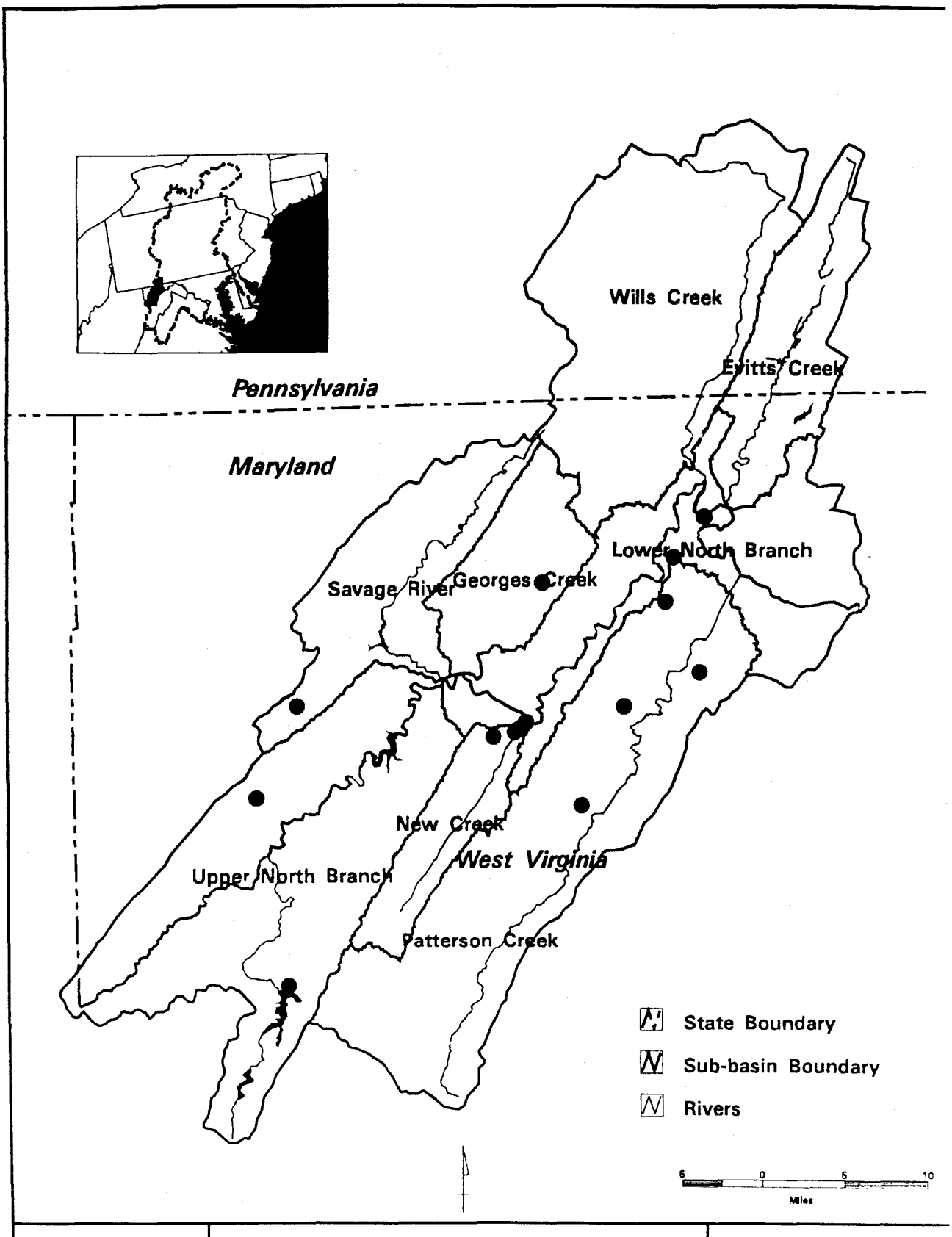
Baltimore District

North Branch Potomac River Treatment, Storage, and Disposal Sites for Hazardous Waste

Figure 2-5

/ARCINFO/DATABASE/NB_POTOMAC/MAPS/TSD.MAP



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North Branch Potomac River
LUST Locations

Figure 2-7

/ARCINFO/DATABASE/NB_POTOMAC/MAPS/LUST.MAP