Ice Harbor Master Plan Appendix A - Project Resources Management Plan

MAY 1982

US Army Corps of Engineers
Walla Walla District

NPDOP-RM (25 Mar 82) 1st Ind
SUBJECT: Ice Harbor Master Plan Appendices - Final Draft

DA, North Pacific Division, U.S. Army Corps of Engineers, P.O. Box 2870, Portland, Oregon 97208 11 May 1982

TO: Commander, Walla Walla District, ATTN: NPWOP-RM

1. We have completed our review of the Ice Harbor Master Plan Appendices - Appendix A - Project Resources Management Plan; Appendix B - Natural Resources Management Plan; Appendix C - Fire Protection Plan; and Appendix D - Safety Plan. Appendix E - Sign Plan was not available for review.

2. Appendices A to D are approved subject to the comments in the attached inclosure, "NPD Staff Comments - Ice Harbor Master Plan Appendices A to D". All comments have been verbally discussed with Mr. Brad Daley, NPWOP-RM.

FOR THE COMMANDER:

1 Incl
wd Incls 1 & 2
Added 1 Incl
3. Staff Comments

FRANK J. BERTINCHAMPS
Chief, Operations Division

North Pacific Division - Staff
Comments - Ice Harbor Master Plan Appendices A to D
10 May 1982

1. Appendix A

a. Page 5-9, Para 5.06(g). It would be useful to mention that non-fee camping will be permitted at Windust Park when Levey Park is closed to camping.

b. Page 6-2, Para. 6.03. Add discussion relative to the impact of PL 96-95 - Archeolgical Resources Protection Act of 1979. Also, ER 1130-2-460 has been rescinded, which presents a problem relative to OCE policy guidance.

c. Page 6-3, Para. 6.04. The relevance of using PL 96-95 versus or in addition to 36 CFR 327 requires some discussion.

d. Page 10-6, Para. 10.13. In discussing the Sign Manual reference NPDR 1130-2-6, dated 15 Sep 1981.

e. Page 12-4., Para. 12.05. The new NPD Supplement dated 30 March 1982, to ER 1130-2-413 - Pest Control Program for Civil Works Projects, dated 1 Feb 82, should be cited for pesticide applicator training requirements.

2. Appendix B.

The final draft of Appendix B is a substantial improvement over previous drafts. This draft of the Fish and Wildlife Management Plan in its present format, should provide the guidance required to operate and maintain Big Flat, Lost Island and Hollenbeke. However, future documents should include more detailed information and insight in those sections dealing with authority, management objectives and species occurrance. These comments will be elaborated upon during the 24 May 1982 discussion of the Mill Creek Wildlife Management Plan.

3. Appendix C. No comment.

4. Appendix D.

a. Page 2-4, Para. 2.10. We assume that the "No Lifeguard on Duty - Swim at Your Own Risk" signs will be posted only at authorized and designated swim areas.

b. Page 4-2. and 6-1. Change reference to the Sign Manual to incorporate NPDR 1130-2-6, dated 15 Sep 81.

Ice Harbor Master Plan:

Recreation - Resource Management Appendices

Appendix A - Project Resources Management Plan

June 1982

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Section 1 - Introduction

Information pertinent to the authorization of the Ice Harbor Project is contained in Section 1.01 of the Ice Harbor Master Plan (U.S. Army; 1977). These appendices are prepared by the Natural Resource Management Branch of the Walla Walla District of the U.S. Army Corps of Engineers in accordance with the requirements of ER 1130-2-400 dated 28 May 1971.

The two main purposes of this appendix are: to describe procedures, policies, regulations, and methods used in managing resources on the Ice Harbor Project; and, to present and describe plans for the management and development of project resources during the next five years (FY 1983-87). These plans include, but are not limited to, the implementation of plans presented in the Master Plan.

A list of applicable Corps of Engineers regulations, manuals, and publications is presented in Section 17. References cited in this document are presented in their complete bibliographic form in Section 18.

Section 2 - Organization and Staffing

2.01 Introduction.

The Ice Harbor Project is the first in a series of four water resource development projects on the lower Snake River in Washington administered by the Walla Walla District Office. Ice Harbor Dam is located at Snake River Mile 9.7 followed by Lower Monumental, Little Goose, and Lower Granite Dams at Snake River Mile 41.6, 70.3, and 107.5, respectively.

2.02 Ice Harbor - Lower Monumental Project Office.

The Ice Harbor Project is administered and managed through the Ice Harbor - Lower Monumental Project Office located at the Ice Harbor Dam. In addition to the Ice Harbor Project, this office is responsible for the upstream section of the McNary Project above Wallula and the downstream section of the Lower Monumental Project below the Joso Bridge. The organization of personnel in the Ice Harbor - Lower Monumental Project Office is shown in Table 2.1.

The Project Engineer is in charge of the Project Office and is directly responsible to the Chief of Operations in the District Office. The Project Engineer's responsibilities include the operation and maintenance of the dam and appurtenant structures and the management of the land and resources within the project boundaries. His staff is divided into four sections, one of which is the Resource Management Section, headed by the Resource Manager.

The Resource Management Section is divided into three separate units, each with its own staff. The organization and staffing of the Resource Management Section is shown in Table 2.2. Funding requirements for permanent and temporary employees of the Resource Management Section are presented in Section 16.02.

TABLE 2.1 ORGANIZATION CHART FOR ICE HARBOR-LOWER MONUMENTAL PROJECT OFFICE

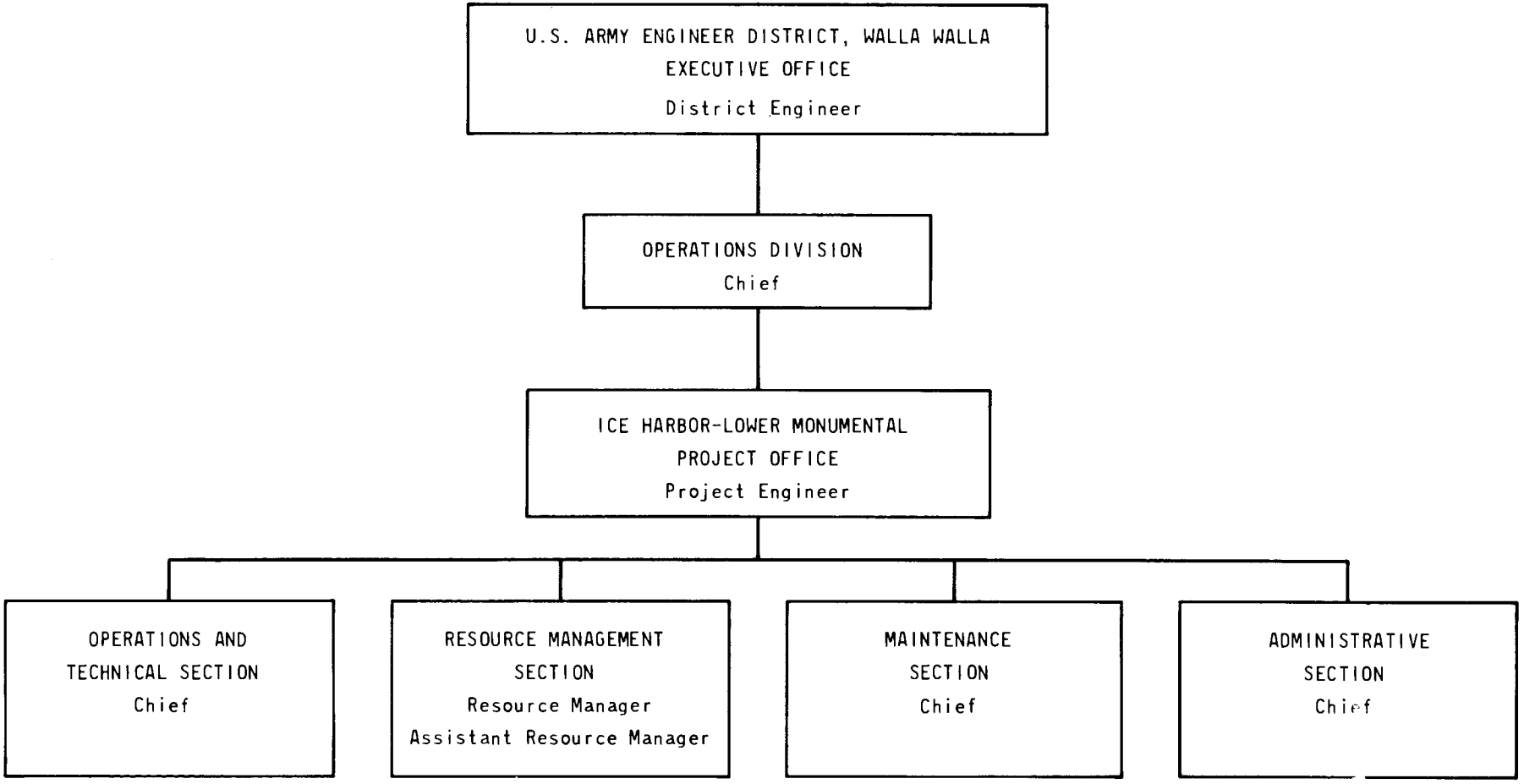
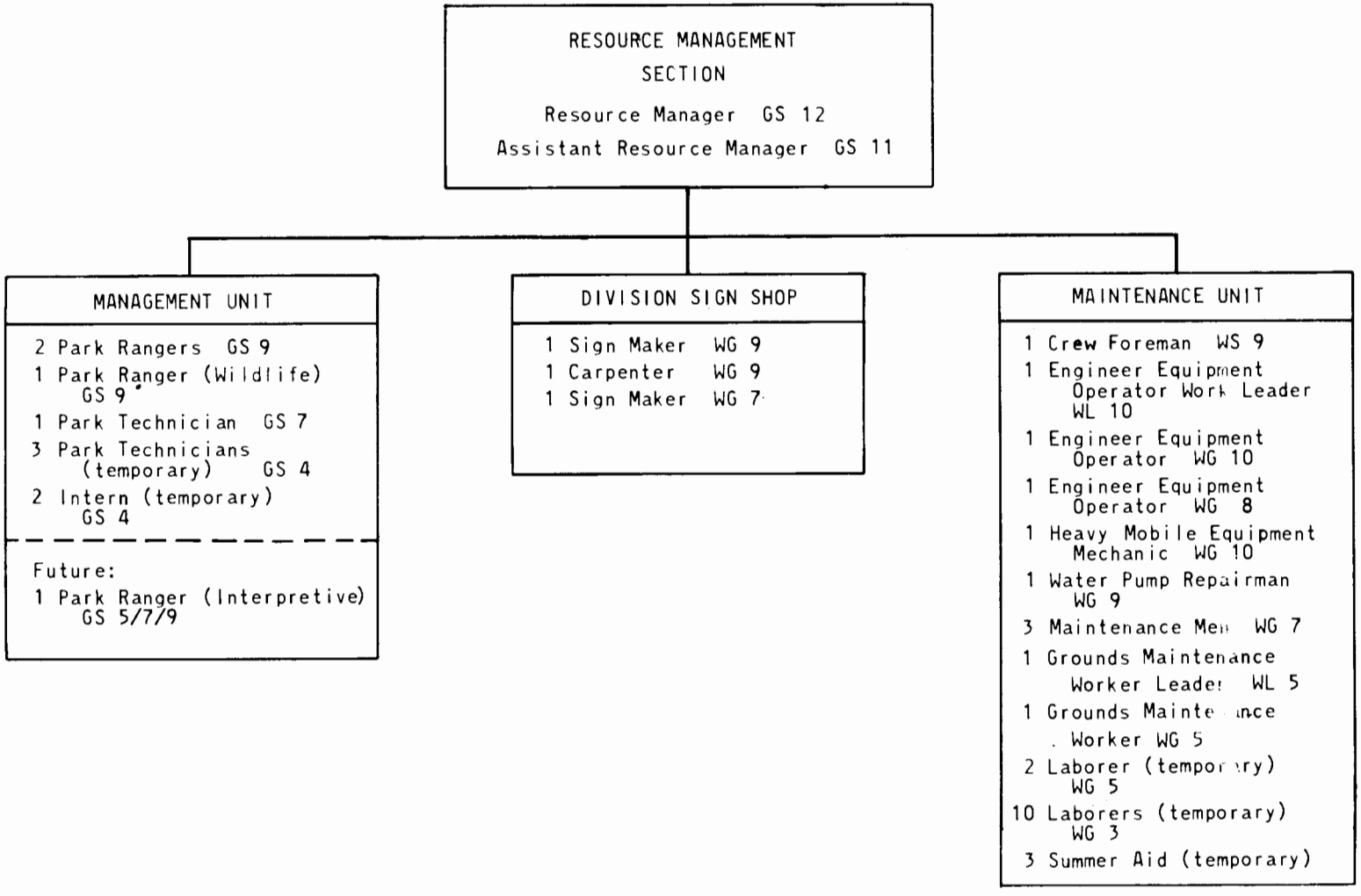


TABLE 2.2

RESOURCE MANAGEMENT SECTION ORGANIZATION AND STAFFING CHART

ICE HARBOR-LOWER MONUMENTAL PROJECT OFFICE



a. Management Unit.

The Management Unit provides assistance to the Resource Manager and Assistant Resource Manager in the management of project resources which includes such duties as:

- o enforcement of Title 36 of the Code of Federal Regulations,
- o detection and reporting of violations federal, state, and local laws,
- o detection of encroachments,
- o administration of outgrants,
- o detection of fires, pollutant spills, pest and erosion problems, health and safety hazards,
- o protection of cultural resources,
- o provide assistance to the public as needed,
- o operation and maintenance of traffic counters and preparation of monthly visitation reports,
- o collection of user fees for camping,
- o administration of contracts,
- o planning and implementation of interpretive program and operation of interpretive facilities,
- o coordination of operations with adjacent landowners and other agencies and organizations,
- o preparation of reports and correspondence and review of plans, and
- o coordination of the development and management of recreation and wildlife areas.

Staffing in this unit presently includes two Park Rangers, one Park Ranger (Wildlife), one Park Technician, four temporary Park Technicians, and a temporary Intern. A future personnel requirement for a Park Ranger (Interpretive) is discussed in Section 2.03.

b. Division Sign Shop.

This unit, located in the Pasco Maintenance Shop on the McNary Project, constructs most of the signs for the North Pacific Division of the Corps. The Assistant Resource Manager at the Ice Harbor - Lower Monumental Project Office, operating under the Project Engineer and the Resource Manager, is responsible for the overall operation of this facility. His duties include: establishing and maintaining a high level of quality and production within the shop; establishing procedures for handling sign requisitions; maintaining records; developing cost data; and, maintaining an adequate stock of parts, materials, and equipment necessary for sign production.

The higher-graded Sign Maker, operating under the Assistant Resource Manager, is responsible for the production of the signs and the daily operation of the shop. He is assisted by a Carpenter and a Sign Maker and by other project personnel as the workload requires.

c. Maintenance Unit.

This unit is responsible for the maintenance of recreation areas and maintenance and operation of all project equipment, facilities, buildings, vehicles, and utilities except for elements of the dam, lock, powerhouse, and fish passage and handling facilities. It is also responsible for the operation and maintenance of the pumping plant and levee system on the McNary Project in the Tri-Cities area. Staffing in this unit includes a Crew Foreman, an Engineer Equipment Operator Work Leader, two Engineer Equipment Operators, a Heavy Mobile Equipment Mechanic, a Water Pump Repairman, six Maintenance Men, as well as seven temporary Laborers, and a Summer Aid.

2.03 Future Personnel Requirements.

The Resource Management Section of the Ice Harbor - Lower Monumental Project Office plans to add only one staff position during FY 1983-87. An Interpretive Park Ranger will be hired to staff the Ice Harbor Visitor Center and coordinate other interpretive work on the project. In addition to this permanent staff position, temporary positions may be added to the Resource Management Section as the work load requires.

Section 3 - Land Allocation

The lands acquired by the U.S. Army Corps of Engineers for the construction of the Ice Harbor Project contain a multitude of natural resources. The land and water resources provide opportunities for a wide variety of public uses as well as habitat for many species of fish and wildlife. The allocation of project lands is described in detail in Section 8 of the Ice Harbor Master Plan. Major land use classifications provide land for project structures, recreation, fish and wildlife management, natural areas, public port terminals, and industrial development.

The allocation of project lands is listed in Table 3.1 in this appendix and exhibited in Plate 1. Since publication of the Master Plan, land use allocations have been changed. The land use map (Plate 1) was revised in 1981 and is included in this appendix.

Table 3.1 - Allocation of Ice Harbor Project Land

ALLOCATION CATEGORY			Acres
PROJECT OPERATIONS:			698.1
Project Structures		652.6	
Lock and Dam Site	524.3		
Fishhook	19.7		
Windust	62.0		
Matthews	46.6		
Public Port Terminals		43.6	
RM 11 N	30.0		
Sheffler	4.1		
Windust	9.5		
Industrial Use & Access		1.9	
Sheffler	1.9		
RECREATION:			592.2
Intensive Use		260.9	
Charbonneau	118.7		
Levey	50.1		
Fishhook	36.0		
Windust	40.9		
Matthews	15.2		
Future Intensive Use		268.1	
ORV Area - RM 9 S	115.0		
RM 9 S	56.2		
Fishhook	10.8		
Windust	10.6		
Matthews	75.5		

Table 3.1 - Allocation of Ice Harbor Project Land (Cont'd)

Low Density Use		63.2	
Charbonneau - downstream	12.8		
Charbonneau - upstream	17.0		
Windust	24.0		
RM 38.5 S	9.4		
WILDLIFE:			2162.3
Intensive Management		1121.3	
Big Flat	712.7		
Lost Island	161.8		
Hollenbeke	246.8		
Moderate Management		1041.0	
RM 10 N	5.5		
RM 12 N	56.8		
Charbonneau	107.8		
Big Flat	120.0		
RM 16 S	82.6		
Fishhook	240.3		
RM 19 N	25.0		
RM 21 N	37.0		
RM 22 N	24.9		
RM 26-34 N	118.9		
Walker	116.6		
RM 36-38 N	105.6		
NATURAL:			119.6
Natural Area		119.6	
Anchor Canyon	119.6		
TOTAL:			3572.2

Ice Harbor
LAND USE · MASTER PLAN

PROJECT BOUNDARY

ROADS

RAILROADS

NORMAL POOL
440 m.s.l.

20 * RIVER MILE

Project Operations

PROJECT STRUCTURES

PUBLIC PORT TERMINAL

INDUSTRIAL USE and ACCESS

Operations · Recreation

INTENSIVE USE

INTENSIVE USE · FUTURE

LOW DENSITY USE

Operations · Fish and Wildlife

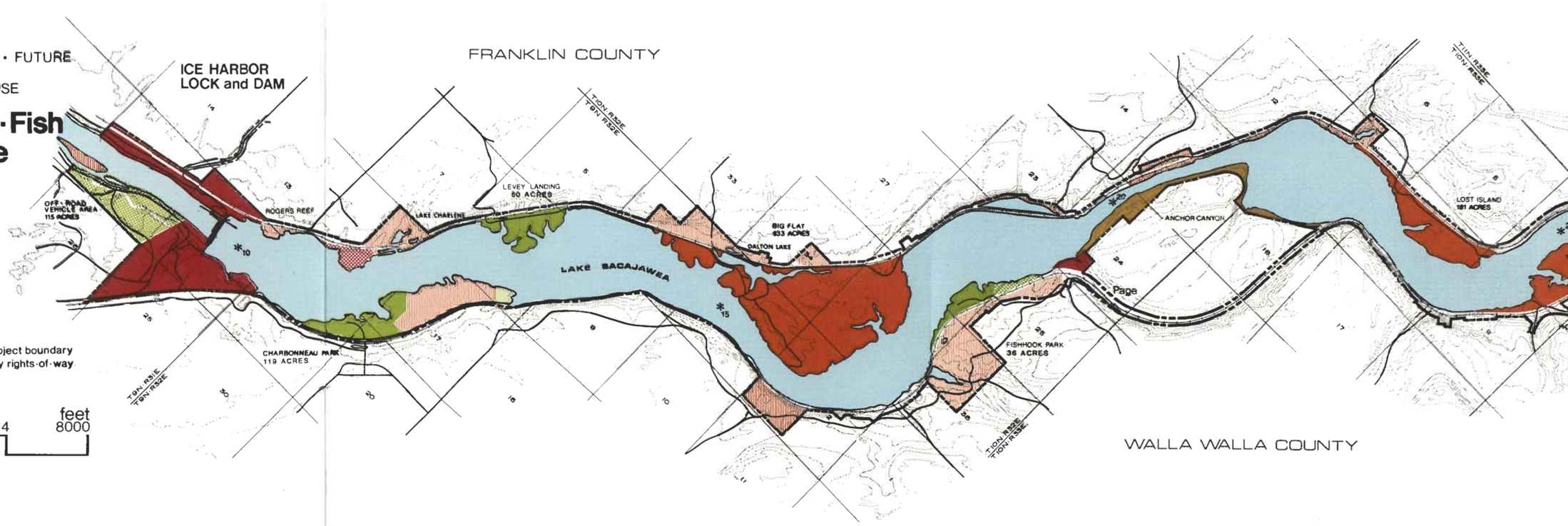
INTENSIVE MANAGEMENT

MODERATE MANAGEMENT

Other

OPERATIONS · NATURAL AREA

uncolored areas within the project boundary are either railroads or highway rights-of-way



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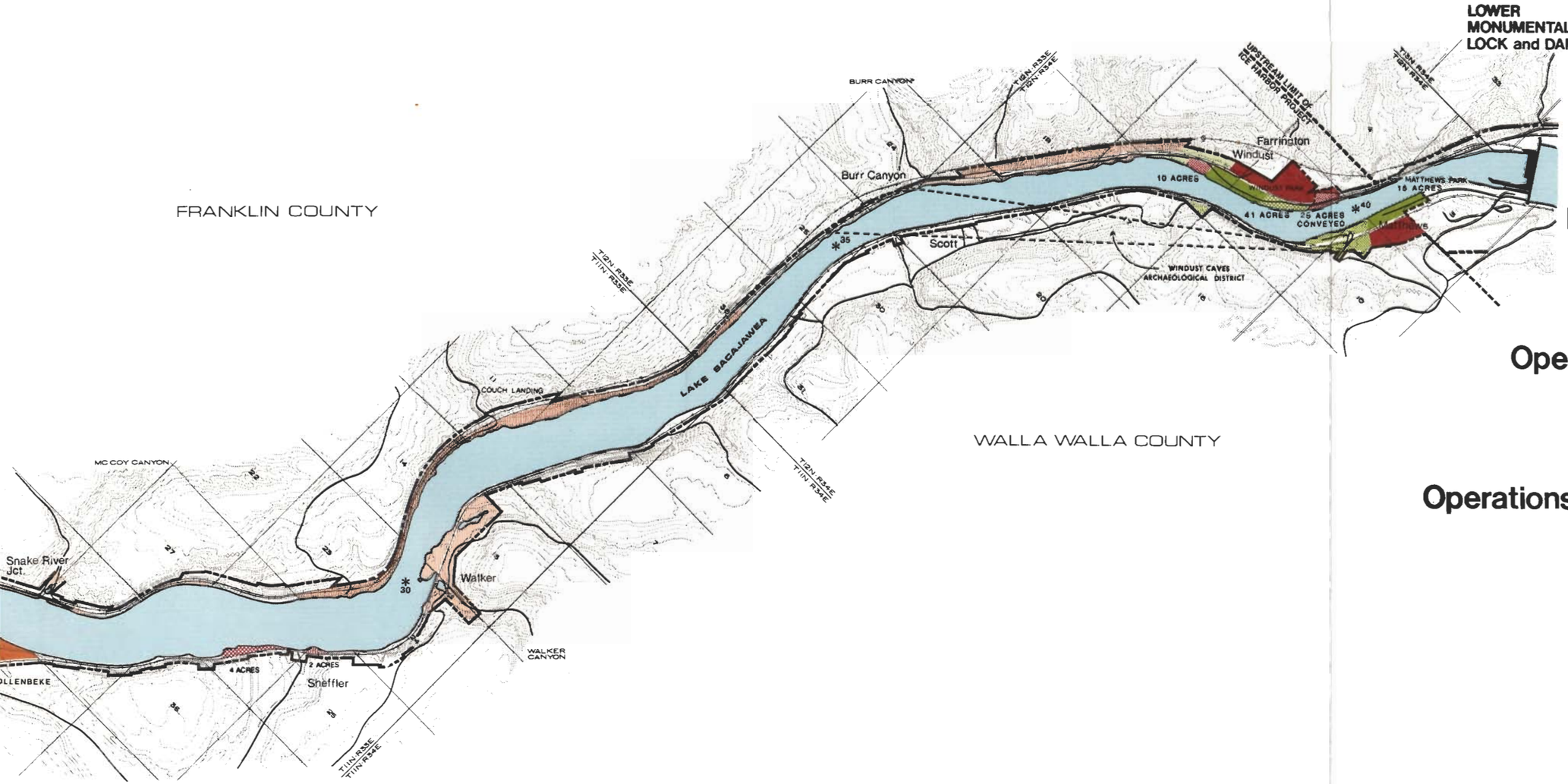
5

1981

LOWER SNAKE RIVER PROJECT

U.S. ARMY ENGINEER DISTRICT
Walla Walla, Washington

Ice Harbor
LAND USE · MASTER PLAN



PROJECT BOUNDARY

ROADS

RAILROADS

NORMAL POOL 440 m.s.l.

RIVER MILE *20

Project Operations

PROJECT STRUCTURES

PUBLIC PORT TERMINAL

INDUSTRIAL USE and ACCESS

Operations · Recreation

INTENSIVE USE

INTENSIVE USE · FUTURE

LOW DENSITY USE

Operations · Fish and Wildlife

INTENSIVE MANAGEMENT

MODERATE MANAGEMENT

Other

OPERATIONS · NATURAL AREA

uncolored areas within the project boundary are either railroads or highway rights-of-way

0 1 2 4 feet 8000

5

1981

U.S. ARMY ENGINEER DISTRICT
Walla Walla, Washington

LOWER SNAKE RIVER PROJECT

Section 4 - Land Management

4.01 Project Structures Areas.

The Ice Harbor Master Plan has allocated 652.6 acres for the operation and maintenance of project structures and the care and management of the project. Most of this acreage is located in the area around the Ice Harbor Dam on both the north and south shores of the river and is occupied by project structures or used for the daily operation of the lock, dam, and powerhouse. Also located on project structures land are recreation facilities at the Ice Harbor Dam, storage areas for project equipment and material, the former Resident Engineer's Office, a water tower, a debris disposal area, and five quarry sites. Recreation facilities are discussed in Section 5, storage areas in Section 7, and the former Resident Engineer's Office in Section 7.03.

a. Water Tower.

The water tower is located on the south shore of the Ice Harbor Dam site. The water tower stores water pumped from two wells on project land and supplies potable water for the dam. The Ice Harbor Project five year plan (FY 1983-87) includes plans to paint this water tower in earth tones to reduce its visual impact upon the environment.

b. Debris Disposal Area.

This 10 acre site, on the south shore approximately one-half mile upstream of the dam, was used until June 1979 as an area where debris was collected, removed from the lake, and stored. A log boom extended from the shore out into the lake to collect and contain the debris. A conveyor on the shore was used to remove the debris from the lake. The general public was allowed to collect firewood here.

However, as a result of a contract for debris removal at the Lower Granite Project, the deterioration of the log boom, and a fire on the site, the debris disposal area has been abandoned. The log boom was removed in April 1979. The conveyor and electrical power at the site remain functional, but will be removed.

c. Quarry Sites.

The first of this project's five quarry sites is located on the south shore just downstream of the dam. The second is located on the south shore approximately one-half mile upstream of the dam.

One mile upstream of Fishhook Park, on the south shore at Snake River Mile (RM) 19, 19.7 acres of project structures land is reserved for the excavation and loading of gravel and riprap material for the Ice Harbor Project. During the initial construction of the project, gravel was removed from this site for the construction of project roads and the relocation of railroads. This site is not currently utilized.

At RM 39, on the north shore adjacent to Windust Park, 62.0 acres are allocated as project structures land for use in the operation and maintenance of the Lower Monumental Dam. In addition, there is a gravel pit on this site which was used in the construction and installation of additional generator units at the Lower Monumental Dam.

On the south shore near Matthews, 46.6 acres are allocated as project structures land and are associated with adjacent project structures land on the Lower Monumental Project. A gravel pit is also located on this site.

Management of project structures land requires relatively low expenditures of time and effort. With the exception of the recreation facilities on the Ice Harbor Dam site, management requirements are restricted to surveillance to detect and control any noxious weed, erosion, health and safety, and encroachment problems. Efforts should be made to preserve, restore, or establish native vegetation on these lands wherever possible when funds are available.

4.02 Recreation Areas.

Development of project lands for recreation was authorized by Section 4 of the Flood Control Act of 1944. Present recreation facilities are located on intensive recreation use land at Charbonneau, Levey, Fishhook, and Windust Parks, and Matthews, and on project structures land at the Ice Harbor Dam. Plates 7-12 of the Ice Harbor Master Plan provide sketches of each of these recreation areas. The management requirements and plans for each of these recreation areas are outlined in Section 5 of this appendix.

There are five areas allocated for future intensive recreation use. These areas total 268.1 acres and are reserved for future development as recreation needs warrant expansion. A 115 acre area on the south shore downstream of the Ice Harbor Dam is designated specifically for off-road vehicle use. However, no ORV groups have

expressed an interest in using this area. No development is planned for this area during FY 1983-87.

Management of future intensive use areas requires low expenditures of time and effort. Management requirements include routine inspection to detect and control any noxious weed, erosion, health and safety, and encroachment problems. Efforts should be made to preserve, restore, or establish native vegetation on these lands when funds are available.

There are four areas allocated for low density recreation use. These low density use areas total 63.2 acres. Development of low density use areas should be kept to the minimum necessary to allow a dispersed visiting public, with non-motorized access through the area, to participate in nature-related activities. No development is planned for these areas during FY 1983-87.

The management of low density use land requires low expenditures of time and effort and is generally restricted to surveillance of the areas.

4.03 Fish and Wildlife Management Areas.

Under provisions of Section 3 of the Fish and Wildlife Coordination Act of 1958 (P.L. 85-624), selected areas of project lands were reserved for development and management of the fish and wildlife resources on the project. Approximately 60 percent of the total project acreage (2162.3 acres) is allocated for this purpose. There are three sites allocated for intensive management and twelve sites allocated for moderate management. All lands in this category are reserved as project mitigation lands and are identified and dedicated to satisfy project mitigation obligations. The management of these areas is discussed in Appendix B - Natural Resources Management Plan.

4.04 Natural Area.

On the Ice Harbor Project, 119.6 acres along the south shore are allocated as a natural area. The area is called Anchor Canyon and is located approximately between RM 19 and 23. In this region, the breadth of the lake narrows considerably and the walls of the shoreline rise dramatically. The geological formations of the Anchor Canyon area, like much of the lower Snake River, are a result of several million years of intermittent volcanic activity and basalt flows. The steep cliffs provide suitable nesting habitat for rock doves, hawks, and possibly

falcons. The terrain of this area also provides habitat for rattlesnakes and small rodents.

Public access to the area is limited to foot and boat travel. The steep and rocky terrain of the Anchor Canyon area precludes the occurence of intensive recreation use.

The Anchor Canyon natural area is managed by the Corps in accordance with Section 8.02-f of the Ice Harbor Master Plan. The primary objective of management in this area is preservation of its natural geological and ecological features. Management requirements include surveillance of the area. In particular, the project resource staff should be aware of possible encroachment by adjacent landowners. The project boundary is not well delineated in this area; it should be resurveyed and monumented. There are no plans for future development of the Anchor Canyon natural area.

4.05 Public Port and Industrial Areas.

Under provisions of Section 108 of the River and Harbor Act of 1960 (P.L. 86-645), land may be made available for conveyance to states, political subdivisions thereof, port districts, or port authorities for the development of public port and industrial facilities.

In 1980, 24.9 acres of land on the upstream side of Windust Park was conveyed to the Port of Kahlotus for port and industrial use and access. This tract is not listed in Table 3.1 as it is not owned by the Corps.

On the Ice Harbor project, a total of 45.5 acres of land is allocated for public port terminals and industrial use and access. Of this, 9.47 acres of land just downstream from Windust Park is leased to the Port of Kahlotus. It is in turn sub-leased to the Louis Dreyfus Corporation. On the south shore of Lake Sacajawea, 1.92 acres of land at Sheffler (Snake RM 29) is leased to the Port of Walla Walla. Both of these leases are discussed in greater detail in Section 13.02.

Management of all conveyed and leased port and industrial land is the responsibility of the respective port districts. Annual inspections are conducted by personnel from Real Estate Division together with project personnel and surveillance is maintained by project personnel throughout the year to insure that development and use of the land adheres to conditions of the quitclaim deed or

lease. Land designated for public port and industrial use but not conveyed or leased is managed by the Resource Manager in accordance with Section 8.02-a (2) and (3) of the Ice Harbor Master Plan.

Section 5 - Public Recreation Areas

5.01 Introduction.

The foremost goal of the recreation-resource management program is coordination of sustained visitor use with other uses of project land and water. Increased leisure time and mobility in our society have contributed to a rising demand for recreation facilities. These factors, when coupled with the rapid population growth in the Tri-Cities area have put an added importance on the recreation areas on the Ice Harbor Project. The possibility exists that the rising cost of gasoline and temporary gasoline shortages may increase the pressure on Ice Harbor Project recreation areas, as people may become more inclined to utilize recreation areas closer to home. However, this trend has not yet become readily apparent at the Ice Harbor Project.

The Ice Harbor Project has six areas where recreation facilities have been developed: the area around Ice Harbor Lock and Dam and Charbonneau, Levey, Fishhook, and Windust Parks, and Matthews. Existing facilities include: day-use areas, swimming areas, camping areas, boat launch ramps, and tie-up docks. A detailed inventory of the facilities at each of the public recreation areas is contained in the Walla Walla District Recreation Facilities Guide, which is published and updated annually by the Walla Walla District Office.

Existing development at each of the Ice Harbor Project recreation areas is discussed in the following section. Management and maintenance responsibilities specific to each recreation area are also presented. Certain duties of the resource management staff are common to all of the public recreation areas. These responsibilities include: administration of park maintenance contracts, visitor assistance, ranger patrols, visitation reports, and natural resource interpretation.

Problem areas, where management or maintenance problems exist, are discussed in this section. Solutions and suggestions for these problem areas and various other improvements to the areas are presented. These are divided into a Five-Year Plan and future development. In Section 16, these projects are listed in order of priority or importance.

Whenever a recreation area is designed, constructed, or improved, the site should be planned to

accommodate the needs of physically handicapped individuals. Guidance for the design of facilities is contained in EM 1110-1-103, "Design for the Physically Handicapped." Resource management personnel are aware of the needs of physically handicapped individuals. Most facilities on this project are designed to permit access by handicapped persons.

5.02 Ice Harbor Dam - Visitor Center.

a. Existing Development.

The visitor center is one of three sites with recreation facilities located around the dam on land allocated for project operations. This facility, located below the dam on the south shore next to the powerhouse, was constructed during FY 1979 and FY 1980. It contains interpretive displays, a fish viewing room, a theatre, an office, and restrooms. A small area (approximately one acre) outside the visitor center is landscaped with lawn grass, trees, and shrubs.

b. Present Management.

The visitor center is strictly a day-use area. It is open from mid-March to mid-November and is staffed by resource management personnel. Visitors are encouraged to tour the center on their own but guided tours for organized groups are possible if requested in advance.

After completing their tour of the visitor center, visitors are encouraged to tour the powerhouse. The self-guided powerhouse tour includes several exhibits on hydro-electric power production, as well as a view inside one of the generators. Guided tours of the powerhouse for organized groups are normally conducted by members of the Operations and Technical Sections with occasional assistance from resource management personnel.

The small landscaped area is managed as a picnic area for visitors to the visitor center.

c. Present Maintenance.

A janitorial service contract covers maintenance of the visitor center and powerhouse in addition to the former Resident Engineer's Office and the navigation lock comfort station. The slide programs and exhibits are maintained by resource management personnel. Grounds maintenance, debris and refuse removal, and operation and maintenance of the irrigation system is done by resource management personnel.

d. Five-Year Plan.

No work is scheduled at this site in the Five-Year Plan.

e. Future Development.

Trees, shrubs, and lawn grass will be planted in a five-acre area outside the fence adjacent to the existing picnic area. The purpose of this project is to beautify the area around the dam and more specifically in the vicinity of the visitor center and to provide a larger picnic area for people visiting the dam. The Master Plan mentions landscaping in this area for site beautification. The existing irrigation system will need to be extended and a few picnic shelters will be installed to provide shade.

f. Future Management.

No changes in management of this site are planned.

g. Future Maintenance.

No changes in maintenance are planned at this site in the next five years.

5.03 Ice Harbor Dam - Indian Memorial.

a. Existing Development.

A memorial to the Native Americans of the region is located on a hill overlooking the dam on the south shore. There are no facilities besides a parking area developed here. A water tower located nearby stores potable water for the dam site.

b. Present Management.

This area is managed as an interpretive area and a sightseeing overlook.

c. Present Maintenance.

Maintenance of this site is minimal and is accomplished by resource management personnel.

d. Five-Year Plan.

The water tower will be painted in an earth tone to reduce its visual impact on the environment. It is currently painted white.

e. Future Management.

No changes in management are planned at this site.

f. Future Maintenance.
No changes in maintenance are anticipated.

5.04 Ice Harbor Dam - North Shore.

a. Existing Development.
Facilities at the Ice Harbor dam site are located on land allocated for project operations. On the north shore, these facilities include a two-lane boat launch ramp, a handling dock, and a small tie-up dock at the upstream end of the navigation lock. A rented portable toilet is located at the launch ramp.

b. Present Management.
This site is managed as a boat access site. The tie-up dock is provided for boaters waiting to be locked downstream.

c. Present Maintenance.
The maintenance and servicing of the portable toilet is covered under the rental agreement. All other site maintenance is done by resource management personnel.

d. Five-Year Plan.

1. Tie-Up Docks.
A schedule for locking recreational craft will be implemented with the start of the recreation season in 1982. This will result in a management problem here because boaters will have to wait several hours for lockages and there are not adequate tie-up facilities to accomodate them. Tie-up docks need to be installed both upstream and downstream of the lock to provide a safe place to wait for lockages. Since there are presently no docks at the downstream end, tie-up docks there are a higher priority than those at the upstream end.

2. Vault Toilets.
Vault toilets need to be installed at the upstream and downstream ends of the lock to provide sanitary facilities for boaters waiting to be locked through. This will solve a management problem created by the implementation of the recreational craft lockage schedule. This will be accomplished under contract with Code 711 funds.

e. Future Development.
The Master Plan mentions landscaping in

the launch ramp area and along the north shore approach road. This will not be done in the foreseeable future.

f. Future Maintenance.

The tie-up docks will be maintained by resource management personnel but the vault toilets will most likely be maintained under contract. No other maintenance changes are anticipated.

5.05 Charbonneau Park.

a. Existing Development.

This park consists of 118.7 acres allocated for intensive recreation use located on the south shore approximately one mile upstream of the dam. About 34 acres are presently developed. Facilities include a two-lane boat launch ramp, handling dock, tie-up dock, breakwater crib wall, swimming area and beach, a picnic area with shelters, tables, and grills, a large group shelter, playground, public phone, a 55-site camping area, and a trailer dump station.

The camping area has 17 sites with water, sewer, and electrical hookups and 38 sites with electrical hookups only. There are two comfort stations in the park. One is located in the day-use area, the other is in the camping area; both have waterborne toilets and hot showers. There is a dry boat storage area and an area with mooring buoys for wet boat moorage.

b. Present Management.

Charbonneau Park is managed by project resource management personnel. A Maintenance Worker resides in the park but his duties are not limited to this park. The wet moorage and dry storage are operated by a concessionaire. Reservations are required for use of the group shelter. Both comfort stations are winterized and closed from mid-November to mid-March. Prior to 1982, the camping area was managed as a non-fee campground. Improvements made in 1982 upgraded it to a fee campground. Camping fees will be collected beginning in 1982 by uniformed resource management personnel. The campground is closed from mid-November to mid-March.

c. Present Maintenance.

Refuse removal is accomplished through a local garbage collection business. Comfort stations are cleaned under a service contract. Maintenance of the wet moorage and dry storage areas is done by the concessionaire.

All other maintenance is accomplished by resource management personnel.

d. Five-Year Plan.

1. Boat Basin.

The Master Plan identifies the boat basin at Charbonneau Park as the most likely site on the project for a commercial public marina. There has been a dry boat storage concession here since 1977 and approximately ten moorage buoys were installed in 1981. The basin was dredged by project personnel in the spring of 1982 and an individual has indicated an interest in developing limited marina facilities in this area.

However, before the area can be made available for a commercial marina lease, some improvements must be made in the basin. The handling dock will be extended because it is too short for efficient launching and loading. Tie-up cleats will be installed on the crib wall for temporary moorage.

Once these improvements are completed, this area will be made available for a commercial marina lease. Facilities developed initially will be limited to not more than fifty open moorage slips and a gas dock for fuel sales. A need for such facilities has been apparent for several years. The restriction of recreational boat lockages which will begin in 1982 is expected to increase the demand.

2. Marine Dump Station.

The marine dump station at Fishhook Park will be moved to the boat basin area at Charbonneau Park. The purpose of this is to consolidate boating facilities at one park instead of scattering them throughout the project. The probable development of a marina at Charbonneau Park makes this the logical place for a concentration of boating facilities. This relocation will be done by resource management personnel.

3. Boat Basin.

The area between the parking area and the crib wall will be landscaped with lawn grass and trees to improve the visual quality of the area which will be receiving more use once moorage is installed.

4. Swimming Area.

The concrete dock surrounding the

swimming area will be refurbished by resource management personnel.

e. Future Development.

1. Camping.

Section 9.05-b(3) of the Ice Harbor Master Plan recommends construction of 96 additional campsites as visitor use warrants and Code 714 funds are available. The Code 714 funding program, which provided for amortizing development costs through user fee collection, was cancelled in 1978. Any future camping area development must be funded by the Code 713 program, which provides for accomplishing recreation development with 50 percent cost-sharing by a non-Federal public agency. Therefore, the development of these additional sites is dependent upon the availability of a willing non-Federal sponsor and Code 713 funds. At the present time, there are no public agencies interested in a cost-sharing agreement at Charbonneau Park, so development of additional camping sites is not planned in the near future.

2. Interpretive Trail.

An interpretive trail will be constructed upstream from the camping area. A pond in this area provides an excellent wetland area for nature interpretation. This trail will be constructed by project resource management personnel.

f. Future Maintenance.

Until it is leased, maintenance of the boat basin will be minimal and will be accomplished by project personnel. Once the area is leased, the lessee will be responsible for the leased area. Periodic dredging of the basin by the Corps may be required. No other changes in maintenance are anticipated.

5.06 Levey Park.

a. Existing Development.

Levey Park consists of 50.1 acres allocated for intensive recreation use located on the north shore approximately three miles upstream of the dam. About 24 acres at this site are presently developed. Facilities include a two-lane boat launch ramp, tie-up dock, trailer dump station, one comfort station with flush toilets, one comfort station with flush toilets and hot showers, swimming area and beach, playground, and public phone. There are

about 15 acres planted in lawn, trees, and shrubs with an underground irrigation system.

b. Present Management.

This park is managed primarily as a day-use area with limited boating facilities. A Park Ranger resides in the park but his duties are not restricted to this area. The comfort stations are winterized and closed from mid-November to mid-March. A portable rental toilet is provided during this period. Camping is permitted on a primitive, non-fee basis in an area on the downstream side of the day-use area.

Despite the absence of a formal campground, this park has long been a popular camping area and camping has been allowed here for many years. Before 1982, non-fee camping was permitted in designated parking areas and in designated places in the day-use area. This evolved into a management problem since at times, there were so many campers that there was not adequate parking and picnic areas for day-users. With the completion of the campground at Charbonneau Park just across the lake, the Charbonneau campground will be transformed into a fee area and the number of campers wanting to camp at Levey Park is expected to increase, worsening the problem.

The present management plan for this park which permits camping in a designated area outside the day-use area will reserve the parking areas and picnic area for day-users while at the same time, continuing to allow camping at the park. This will lessen conflicts between campers and day-users and is considered a temporary solution to a management problem.

c. Present Maintenance.

Grounds maintenance, debris and refuse removal, operation of the irrigation system, and maintenance of the comfort stations is covered by a park maintenance contract. The project resource management staff is responsible for maintenance of the irrigation system.

d. Five-Year Plan.

1. Comfort Station.

The comfort station on the east (upstream) side of the swimming area was built in the late 1960's and is no longer large enough to handle the level of use which is occurring at the park. Long lines and unsanitary conditions are common on summer weekends. This

will be accomplished under contract with Code 711 monies. These funds need to be budgeted two years in advance.

2. Swimming Area.

This park has a designated swimming area and beach delineated by a buoy line which is removed during the winter. A breakwater will be designed and constructed across the swimming area. This barrier will significantly reduce beach maintenance, keep hazardous debris out of the swimming area, separate swimmers from boaters, while allowing adequate water circulation to maintain acceptable water quality.

The swimming area faces southwest, into the prevailing winds, which causes debris to collect in the area. The collection and disposal of this debris can be a very time-consuming task and debris floating in the swimming area is a safety hazard to swimmers.

Many years ago, a rockfill structure was built across the entrance to the swimming area which stopped the movement of debris into the area. It also stopped water circulation in the area; consequently, the water quality deteriorated to unacceptable levels. The rockfill structure was replaced by a floating concrete dock, which could not withstand the wave action and had to be removed during the summer of 1978. It was replaced with a 100-foot fingerfill, but it has not solved the debris control and beach erosion problems. In FY 1981, the floating concrete dock was redesigned, repaired, and reinstalled. However, this is not a permanent solution.

3. Irrigation System.

This system is currently manually operated by the park maintenance contractor. It will be automated to reduce maintenance costs.

4. Handling Dock.

A handling dock will be constructed at the boat launch ramp. Levey Park is a popular boating area and presently there is no structure at the ramp to aid launching. With the amount of boating here, launching can be hazardous. The tie-up dock is often used completely for temporary moorage.

e. Future Development.

The nature interpretive area described in the Master Plan will not be developed in the near future.

f. Future Maintenance.

In FY 1983, comfort stations will be cleaned under a service contract and garbage collection will be accomplished by a local garbage collection business. All other maintenance will be done by resource management personnel. Automation of the irrigation system and construction of a breakwater across the swimming area will significantly reduce maintenance costs at this park. The handling dock will require minor non-routine maintenance.

g. Future Management.

Presently, non-fee camping is permitted in a designated area on the downstream side of the day-use area. This is an improvement over the previous management which allowed camping in the day-use area as described in Section 5.06-b. The present management is considered a transition toward entirely phasing out camping at Levey Park.

5.07 Fishhook Park.

a. Existing Development.

Fishhook Park is developed on a 36 acre site located on the south shore at approximately River Mile (RM) 18, eight miles upstream of the dam. Of the 36 acres allocated for intensive recreation use, about 29 acres are presently developed. An additional 10.8 acres on the upstream end of the park is allocated for future intensive recreation use. Presently developed facilities include a two-lane boat launch ramp, handling dock, crib wall, tie-up docks, and water ski docks; a picnic area with tables, shelters, and grills; a swimming area and beach; a 41-site camping area, trailer dump station, playground, and public phone. Also located here is a partially completed marine dump station.

There are two comfort stations in the park. They both have waterborne toilets but the one in the camping area also has hot showers. There are no hookups in the camping area.

b. Present Management.

Fishhook Park is managed by project resource management personnel. A Park Ranger resides in the park but he works out of the Ice Harbor Project Office. The camping area is managed as a fee campground from mid-May to mid-September. During the rest of the year, the campground is gated and locked. Camping fees are collected by uniformed resource management personnel. Both comfort

stations are winterized and closed from mid-November to mid-March. A portable rental toilet is provided during this period.

c. Present Maintenance.

The comfort stations are cleaned under a service contract. Refuse is collected and disposed of by a local garbage collection business. The portable toilet is serviced by the owner. All other maintenance at this park is performed by project resource management personnel.

d. Five-Year Plan.

1. Day Use Comfort Station.

The comfort station in the day-use area will be replaced as soon as Code 711 money is available. The existing structure has deteriorated somewhat and is not large enough to accommodate visitors during periods of heavy use. This will be accomplished under contract with Code 711 funds. These funds need to be budgeted two years in advance.

2. Camping Area.

The potable water supply for the camping area will be modified by installing an underground water line and spigots in the area - approximately one spigot for every five campsites. This will be done by resource management personnel.

3. Irrigation System.

This system is currently manually operated by the resource management personnel. It will be automated to reduce maintenance requirements.

4. Marine Dump Station.

This will be moved to Charbonneau Park. For more discussion, refer to Section 5.05-d.2.

e. Future Development.

1. Amphitheatre.

An outdoor amphitheatre will be constructed in the park to present interpretive programs to park visitors to improve their recreation experience. This facility is shown as future development on Plate 10 of the Ice Harbor Master Plan. This will be constructed by resource management personnel.

2. Interpretive Trail.

A self-guided nature interpretive trail will be developed by resource management personnel.

This trail should be a fairly short, one-way loop interpreting the vegetation, wildlife, climate, and microclimate of the area.

f. Future Maintenance.
No changes in maintenance are anticipated.

5.08 Windust Park.

a. Existing Development.
Windust Park is developed on a 40.9 acre site located on the north shore approximately two miles downstream of Lower Monumental Dam. Of the 40.9 acres allocated for intensive recreation use, about 12 acres are presently developed. An additional 10.6 acres on the upstream end of the park is allocated for future intensive recreation use and 24 acres on the downstream end is allocated for low density recreation use. Existing facilities include a single lane boat launch ramp, tie-up dock, swimming area and beach, picnic area with tables, shelters, and grills, a playground, and a comfort station with waterborne toilets.

b. Present Management.
The park is managed by project resource management personnel basically as a day-use area. However, non-fee camping is permitted in designated areas. The comfort station is winterized and closed from mid-November to mid-March. A portable rental toilet is provided during this period.

c. Present Maintenance.
All maintenance at this park is performed by project resource management personnel. The portable toilet is serviced by the owner.

d. Five-Year Plan.

1. Primitive Camping Area.
A primitive camping area will be developed at Windust Park to better manage the existing camping use. This camping area will contain the camping use in a designated location and prevent conflicts between campers and day-users.

Only minor development is necessary to provide a primitive camping area for non-fee camping. A gravel road will be developed along with approximately ten gravelled sites, and minor landscaping to provide some shade

and ground cover. This will be done by project resource management personnel.

2. Comfort Station.

The existing comfort station needs to be replaced because the existing one is too small to handle the number of visitors to this park during peak use. This will be accomplished with Code 711 funds which need to be budgeted two years in advance.

3. Trailer Dump Station.

A trailer dump station will be installed in this park. It is needed to handle camping use in this area of the river. This will be done under contract with Code 711 funds. Code 711 funds need to be budgeted two years in advance.

4. Launch Ramp.

The boat launch ramp will be dredged out with the District's Mud Cat. This is a periodic maintenance requirement.

5. Irrigation System.

The existing irrigation system at Windust Park is a manual system. It will be automated to reduce maintenance time required at the park.

6. Swimming Area.

The swimming beach will be regraded with pea gravel or some other suitable material. The existing material is too coarse for a good beach surface.

e. Future Maintenance.

The primitive camping area will result in only minor additional maintenance requirements. No other changes are anticipated.

5.09 Matthews.

a. Existing Development.

Matthews is a boat launch area on the south shore approximately one mile downstream of Lower Monumental Dam. There are 15.2 acres allocated for intensive recreation use, and 75.5 acres allocated for future intensive recreation use. Existing facilities include a single lane boat launch ramp, handling dock, and vault toilets.

b. Present Management.
This site is managed by the project resource management staff as a boat access site.

c. Present Maintenance.
Matthews is maintained by project resource management personnel.

d. Five-Year Plan.
No work is planned at this site in the Five-Year Plan.

e. Future Maintenance.
No maintenance changes are expected.

Section 6 - Cultural Resources Management

6.01 Introduction.

The term "cultural resource" refers to any building, site, district, structure, object, datum, or other material significant in history, architecture, archaeology, or culture. The lower Snake River provides this region with a wealth of cultural resources. Although the more significant sites are located upstream on the Lower Monumental Project and downstream on the McNary Project, several important sites have been discovered on the Ice Harbor Project. Among the more noteworthy sites are: Burr Cave, which is listed on the National Register of Historic Places; Ash Cave, which is included on the prioritized site list and scheduled for future archaeological testing; and, Windust Caves Archaeological District, which has been nominated to the National Register of Historic Places.

Sections 5.02 and 5.03 of the Ice Harbor Master Plan contain a general review of the archaeological and historical resources of this project. A more detailed accounting of these resources is included in Cleveland, et. al. (1976) and Stratton and Lindeman (1976).

6.02 Legislative Background.

The following list provides a legislative background clarifying the responsibilities of the Corps of Engineers with respect to the management of the project's cultural resources.

- o Antiquities Act of 1906 (P.L. 59-209) (34 STAT. 225)
- o Historic Sites Act of 1935 (P.L. 74-292) (49 STAT. 666)
- o Reservoir Salvage Act of 1960 (P.L. 86-523) (74 STAT. 220)
- o National Historic Preservation Act of 1966 (P.L. 89-655) (80 STAT. 915)
- o National Environmental Policy Act of 1969 (P.L. 91-190) (83 STAT. 852)
- o Preservation of Historic and Archeological Data (P.L. 93-291) (88 STAT. 174)

- o Executive Order 11593, Protection and Enhancement of the Cultural Environment, 13 May 1971 (36 F.R. 8921, 15 May 1971)

- o Archeological and Historical Data Conservation Act of 1974 (74 STAT. 220)

- o Archaeological Resources Protection Act of 1979 (P.L. 96-95)

Until 1966, the National Park Service was delegated by legislation with the primary responsibility for the management of cultural resources associated with Federal programs and projects. With the enactment of the National Historic Preservation Act of 1966 and subsequent legislative and administrative actions, however, this responsibility was shifted to agencies having jurisdiction or control over these resources. Executive Order 11593 affirms this point by clearly stating that agencies of the executive branch of the Federal Government shall administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations. As a result, the Corps now has an Archaeological Coordinator with responsibility for cultural resources management. The role of the National Park Service in these matters has shifted to that of a principal coordinator and expert advisor to other agencies.

6.03 Cultural Resources Management Program.

In the Walla Walla District, the Archaeological Coordinator has the primary responsibilities for the management of cultural resources. A three-step program has been developed and is currently in progress under his direction. Step One is the reconnaissance of project land to locate all sites of archaeological importance. This step was accomplished in 1976 under a contract with the Washington Archaeological Research Center at Washington State University in Pullman, Washington. The findings of this study are contained in Cleveland, et. al. (1976). Besides locating all visible archaeological sites, each was evaluated in its present condition, and the geologic processes affecting or threatening them were analyzed and recorded. In addition, the study presents the Corps with specific recommendations for the preservation of these sites.

Step Two of the program is to return to each site and complete a further investigation, testing for

archaeological significance. Since all sites cannot be tested simultaneously, a prioritized site list is developed with highest priority given to sites threatened by disturbance in the form of erosion or vandalism. Once significant or valuable archaeological sites have been located and tested, action is taken to either (1) preserve the site in its present condition and protect it from erosion and vandalism, or (2) salvage the site (Step Three).

A prioritized site list has been developed and site testing for archaeological significance is being accomplished at the present time (FY 1982). This work is being coordinated and administered by the Archaeological Coordinator at the Walla Walla District Office; actual field work is done by the contractor. The responsibilities of project personnel with regard to this three-step program vary from site to site but are generally limited to support activities for the contractor, such as transportation of equipment to and from the site when necessary.

6.04 Protection of Cultural Resources.

Besides providing support to archaeological contractors, project personnel assist the Archaeological Coordinator through surveillance of project lands. They protect all known archaeological sites from vandalism and erosion. Also, it is believed that there are many archaeological sites not discovered by the reconnaissance study in 1976 that will become exposed due to vandalism or erosion. Project personnel must keep an eye open for these sites as they become exposed, especially following periods of high water flow or strong wind. Whenever an exposed site is reported or a site is discovered, the Archaeological Coordinator and Resource Manager should be notified immediately. All personnel should familiarize themselves with WWDR 1180-1-5, 20 September 1977.

Cultural resources are protected from vandalism primarily through enforcement of Section 327.14 of Title 36 of the Code of Federal Regulations (CFR) by Corps' rangers. This regulation prohibits the destruction, injury, defacement or removal of public property including historical and archaeological features. People on the project who appear to be digging, carrying digging equipment, loitering, or exhibiting unusual behavior in the vicinity of known archaeological sites are approached and questioned. If they are violating the regulation, a warning citation or violation notice is issued. The county sheriff should be contacted also for possible citation under State antiquity laws.

Whenever a person or persons are discovered vandalizing an archaeological site, the Archaeological Coordinator at the Walla Walla District Office is contacted. He, along with the Office of Counsel, may contact the U.S. Attorney's Office in Spokane for possible enforcement of the Archaeological Resources Protection Act of 1979 (P.L. 96-95). This act prohibits the excavation, removal, damage, alteration, defacement, sale or purchase of any archaeological resource. These are defined in the act as material remains of past human life or activities which are of archaeological interest and at least 100 years of age. They include but are not limited to the following items:

- o pottery, basketry, and bottles.
- o weapons and weapon projectiles.
- o tools.
- o structures or portions of structures.
- o pit houses.
- o rock paintings and rock carvings.
- o intaglios.
- o graves and human skeletal materials.
- o any portion or piece of any of the foregoing items.

This act can only be enforced in this area by the U.S. Attorney's Office and carries very stiff penalties.

6.05 Cultural Resources Awareness Program.

In addition to his other responsibilities, the Archaeological Coordinator administers a Cultural Resources Awareness Program to increase the awareness of project personnel with respect to cultural resources and their management. This program should be presented to all project personnel annually to provide for the effective management of cultural resources.

6.06 Source of Funds.

Funds for the management of cultural resources come from O&M allocations in the project budget. The anticipated funding requirements for this program during

FY 1983-87 are limited to contingency funds for emergency work, and listed in Section 16.04.

Section 7 - Maintenance and Storage Facilities

7.01 Introduction.

The Ice Harbor Project has maintenance and storage facilities at various locations including the powerhouse, the former Resident Engineer's Office, and three open storage areas. On occasion, the Ice Harbor Project also utilizes some maintenance and storage facilities on the McNary Project, especially the Pasco Maintenance Shop.

7.02 Ice Harbor Powerhouse.

The third floor (lower ground level) of the Ice Harbor powerhouse is the location of a small general shop area and service bay. Shop equipment includes a lathe, drill presses, a pipe threader, welding tools, a steam cleaner, a 50-ton hydraulic press, and a small cleaning tank for car parts. Space has been set aside also for electrical work.

A small paint shop is located on the eighth floor of the Ice Harbor powerhouse. It serves mainly as a paint storage room, but also contains a small compressor.

A large amount of storage space is available on the first and second floors of the powerhouse. Rooms have been assigned specifically for storage purposes, and parts of passageways are also used for storage. A wide variety of equipment and material including wire, rope, air pumps, oil for the generators, and irrigation equipment is kept in these storage areas.

7.03 Former Resident Engineer's Office.

On the south shore downstream of the dam, the former Resident Engineer's Office is utilized for the storage of items such as toilet paper, paper towels, rubber gloves, and cleaning liquids.

7.04 Open Storage Areas.

Three open storage areas at the Ice Harbor Dam site are available for the storage of items which are not vulnerable to weather. The Middle Yard (70' x 470') is located on the south shore on the dam site and is enclosed with a chain link fence. The South Shore Fish Ladder Yard (200' x 1100') is under the south shore fish ladder, illuminated at night, and enclosed with a chain link fence. The Upper Yard (800' x 1500') is located on the south shore service road to Charbonneau Park.

Space for parking project vehicles is available at the South Shore Fish Ladder Yard and on top of the dam itself. The project LCM boat is docked on the north shore near the navigation lock.

7.05 Pasco Maintenance Shop.

The Pasco Maintenance Shop, located in the Big Pasco Industrial Area, is a facility on the McNary Project that is sometimes utilized by the Ice Harbor Project. It measures approximately 100' x 200' and houses a carpentry shop, a vehicle repair shop, and the Division Sign Shop. Behind the building is a storage yard measuring approximately 200' x 250' which is fenced and illuminated at night. Heavy equipment, project vehicles, and miscellaneous material are kept here. There are also two metal sheds and three fuel storage tanks in the yard. One shed (16' x 36') is used for storage of oil and solvents, and the other shed (16' x 80') is used for storage of pesticides and other dry, nonflammable inorganic materials. Two of the tanks (250 and 10,000 gallon capacities) are used for gasoline storage, while the other tank (3,000 gallon) contains diesel fuel.

Section 8 - Office and Administrative Facilities

8.01 Introduction.

The Ice Harbor Project is administered and managed through the Ice Harbor - Lower Monumental Project Office located at the Ice Harbor Dam. The organization of management responsibilities for the Ice Harbor Project is discussed in Section 2 of this appendix.

8.02 Ice Harbor Dam.

There are approximately 2,500 square feet of office space in the powerhouse at Ice Harbor Dam. There are six separate offices located on the seventh floor for the Project Engineer, Resource Manager, Assistant Resource Manager and Park Ranger, Administrative Officer, Park Ranger and Park Technicians, and three Clerk-Typists. The offices of the Chief of Operation and Technical Section, Chief of Maintenance Section, Technical Branch, Map Files, and a Maintenance Clerk are found on the sixth floor.

There is a small office for resource management personnel in the Ice Harbor Visitor Center. The visitor center was completed and opened to the public in the summer of 1980.

Section 9 - Recreation Use Fees

9.01 Policy.

It is the policy of the Corps of Engineers (ER 1130-2-404, Recreation Use Fees, 29 May 1981) to charge camping fees comparable with other Federal and non-Federal public agencies as determined by the District Engineer, depending on services offered and facilities available. A maximum additional charge of $1.00 a day may be made for electrical hook-ups where available.

On each project where recreation use fees are assessed at designated camping areas, it is also policy to provide at least one primitive camping area where no recreation charge is imposed. These areas must contain designated campsites, sanitary facilities, vehicular access, as well as provide visitor protection through regular ranger surveillance.

9.02 Fishhook Park.

The campground at Fishhook Park is open from mid-March to mid-November but camping fees are collected only from mid-May to mid-September. In 1982, the camping fee will be $6.00 per day. There are no electrical hookups available. Fees are collected by a uniformed resource management employee.

9.03 Charbonneau Park.

In 1981, the campground at Charbonneau Park was managed as a non-fee camping area. Improvements were made to the area in 1982 which will transform it to a fee area. When construction is completed, the camping fee will be $6.00 per day plus $1.00 for an electrical hookup. The campground will be open from mid-March to mid-November.

9.04 Primitive Camping Areas.

In 1981, the Charbonneau Park campground was managed as a primitive (non-fee) camping area. In addition, overnight camping was permitted in designated areas of Levey and Windust Parks. In 1982, improvements made to the campground at Charbonneau Park changed it to a fee area. At the same time, overnight camping at Levey Park was moved to an area outside the day-use area. From 1982 on, non-fee camping will be allowed at Levey and Windust Parks. The objective, however, is to phase out camping at Levey Park and establish a primitive camping area at Windust Park.

9.05 Special Fee Passports.

The Corps of Engineers has been authorized to issue Golden Age Passports to applicants who are 62 years of age or older and are citizens of or persons domiciled in the United States. Golden Age Passport applications are available from fee collectors in the field, the Ice Harbor Project Office and the Walla Walla District Office. The bearer of a Golden Age Passport and those who accompany him or her are given a 50 percent reduction of the prescribed recreation use fees at Corps project areas.

Golden Access Passports are available to blind and/or handicapped individuals. This passport entitles these individuals to a 50 percent reduction in recreation use fees. They are available from fee collectors in the field, the Ice Harbor Project Office and the Walla Walla District Office.

Since entrance and admission fees are prohibited at projects operated by the Corps of Engineers, Golden Eagle Passports are neither honored nor sold at Corps offices and projects. Golden Eagle Passports do not apply to recreation use fees.

9.06 Refunds and Revenue.

In case a necessity for a refund arises, the fee collector will complete Form NPW FL 133, Request for Refund of User Fees. The form must be signed by the individual requesting the refund. The fee collector will then submit the completed form to the Ice Harbor Project Office where it will be forwarded to the Finance and Accounting Branch in the Walla Walla District Office. The individual will be mailed a refund check from the district office after the form is processed. Under no circumstances will refunds for recreation use fees be made at the project.

Revenue collected through recreation use fees at areas managed by the Corps of Engineers are deposited into a special account in the U.S. Treasury. These funds are then made available to the Corps for use in the maintenance and improvement of recreation facilities.

Section 10 - Maintenance Activities

10.01 Lawn Grass.

Turfed areas on the Ice Harbor Project include portions of the recreation areas at Ice Harbor Lock and Dam, and Charbonneau, Levey, Fishhook, and Windust Parks. These turfed areas have been established, with trees and shrubs planted, in order to beautify the areas, stabilize the shoreline, and provide a ground cover that will withstand heavy visitor use.

Due to the low rainfall levels on the Ice Harbor Project, irrigation systems are located at all sites where lawn grasses are planted. These areas are irrigated as often as required. In general, the frequency of watering depends upon the soil texture at the site. Watering should be done either in the early morning or late evening, or at night, if possible, to coincide with periods of low visitor use and low evaporation rates.

Lawn grass should not be watered lightly at frequent intervals, for this causes shallow growth of grass roots and stimulates weed growth. Enough water should be applied to wet the soil to a depth of six inches or more. Water should not be applied faster than the soil absorption rate to prevent run-off and erosion.

Common fertilizers may be applied to lawn grass areas as needed. The choice of fertilizers and frequency of application should be based upon sample soil tests. For information on fertilizers and their appropriate uses, refer to Law, et. al. (1972).

Turfed areas are mowed as needed throughout the growing season, which is normally 1 April through 30 October. The mower cutting height should be between two and three inches. Closer mowing will weaken and may kill the grasses. In addition, close-cut grass requires more frequent watering.

Frequent mowing removes little top growth and keeps down weed competition. If mowed frequently, clippings may be left on the lawn. Lawn grass should not be allowed to grow unusually high before it is cut because this is a physiological shock to the grass and necessitates removal of the clippings to prevent diseases and smothering of the grass.

Mower blades should be kept sharp enough to cut the grass cleanly without bruising or tearing the leaves. Rotary mower blades require frequent sharpening.

Mowing may be done during any period of the day with little fear of burning the grass, provided that these areas are adequately watered and mowed frequently to no less than two inches in height.

At Levey Park, mowing and fertilizing, as well as operation of the manual irrigation systems, is accomplished under the park maintenance contract. At Charbonneau, Windust and Fishhook Parks, these duties are performed by project personnel. Maintenance of the irrigation systems is done by the project resource management staff.

10.02 Dryland Grass.

Dryland grasses have been planted on the Ice Harbor Project in areas that have been disturbed by construction activities and in some wildlife areas. As a general rule, dryland grasses and native species are preferable to lawn grass because they are less expensive to plant and maintain. Dryland grasses generally do not need irrigation or fertilization and may not require mowing, depending upon how the area is to be used. However, in this area of little rainfall they are vulnerable to trampling. In all cases, due consideration should be given to specific site factors such as soil type, climate, topography, exposure to direct sunlight, and intensity of visitor use. Also important is the attempt to establish and maintain a diversity of plant species of different ages to minimize the possibility of complete loss by natural causes.

10.03 Trees and Shrubs.

The benefits derived from planting trees and shrubs in recreation areas include a higher aesthetic value and protection from the wind and hot summer sun. Generally, non-native species adapted for this area are planted. New tree and shrub plantings are generally cultivated and watered regularly for several growing seasons or until they become well established. Shrubs are, in general, more shallow rooted than trees and may require irrigation on a regular, sustained basis. Tree plantings may be pruned in the fall or early spring during dormancy to develop or shape them into desirable shade trees. Fall pruning is more desirable.

Appropriate pruning techniques may be found in the following references: Brooks and Johnson (1978), Chandler and Cornell (1952), Davey (1967), Harris et. al. (1969), and Hudson (1952). Dead trees are marked for removal and replaced with a new planting. Dead limbs considered dangerous are removed as needed. Trees damaged by wind or lightning are trimmed and repaired with a sealing substance and supportive materials as needed.

10.04 Restrooms.

Since the condition of restrooms is one of the most important and long-lasting impressions visitors receive during their visit to the project, it is imperative that these facilities are constantly maintained in a high state of cleanliness and repair. Flush toilets are located in areas where visitor use is relatively high such as the Ice Harbor Dam, Charbonneau, Levey, Fishhook, and Windust Parks. Vault toilets are located in areas with low visitor use such as Big Flat and Matthews. Both types of restrooms are well ventilated; flush toilets are well illuminated also. All openings to the outside except the doors are screened; doors are self-closing.

At the Ice Harbor Dam site, the maintenance of restrooms is done under a janitorial service contract. At Levey Park, restroom maintenance is done under the park maintenance contract. Restrooms at Charbonneau and Fishhook are maintained under a service contract. The restrooms at Windust and Fishhook Parks and the vault toilets at Matthews and Big Flat are maintained by project personnel.

All restrooms and vault toilets are cleaned, serviced, and stocked with supplies as needed. The effluent level on the vault toilets at Big Flat and Matthews, is checked during servicing, and vaults are pumped by a local septic tank service before storage reaches 80 percent capacity.

Since the implementation of the Architectural Barriers Act of 1968 (P.L. 90-480), all comfort stations constructed on the Ice Harbor Project have been equipped with toilet facilities designed to accommodate physically handicapped individuals. These facilities are located in the day-use and camping area restrooms at Charbonneau Park, and the camping area restroom at Fishhook Park. None of these restrooms were constructed with barrier-free access. In FY 1981, concrete sidewalks were added to the restrooms at Charbonneau Park. All restrooms with facilities to accommodate physically handicapped individuals should also

have paved barrier-free access from the nearest parking area and should be appropriately designated with the international symbol of access (wheelchair figure on a square background). In the interest of barrier-free movement by all members of the recreating public, buildings should be designed and constructed to ensure accessibility both to the facility and within the facility.

10.05 Picnic Tables and Shelters.

Picnic tables and benches are cleaned periodically as needed. Shelters are swept, with insect and arachnid nests and webs removed from the walls and ceilings. They are also occassionally washed with a high-pressure spray. All damaged and vandalized items are repaired soon after discovery with consideration given to preventing similar occurences following repair. All tables and benches are inspected annually and refurbished as needed; painted surfaces are sanded and repainted when necessary.

10.06 Fireplaces and Grills.

Fires on project land are permitted only in fireplaces, grills, or other facilities designed for this purpose and only in areas designated by the District Engineer (Code of Federal Regulations, Title 36, Section 327.10-b.). Unauthorized and illegal fire rings are dismantled, the ashes and debris removed, and the soil restored whenever they are discovered. In all authorized fireplaces and grills, ashes and other debris are removed periodically.

10.07 Refuse Disposal.

At the visitor facilities at the Ice Harbor Dam, Charbonneau and Fishhook Parks, trash is collected and disposed by a local garbage collection business. At Levey, garbage disposal is included in the park maintenance contract. At Matthews and Windust Parks, this is done by project personnel.

10.08 Grounds Policing.

Grounds policing is a continuing requirement and is done in conjunction with refuse collection. Any trash, litter, or other debris on project land is picked up and disposed of whenever discovered.

10.09 Boat Ramps and Docks.

Boat ramps are located at the Ice Harbor Dam, Charbonneau, Levey, Fishhook, and Windust Parks, and Matthews. They are all constructed of non-skid corrugated concrete to enhance traction and are kept free of silt and obstructions.

Handling docks are located at Ice Harbor Dam, Charbonneau, Fishhook, and Windust Parks, and Matthews to facilitate boat launching. Tie-up docks are located at Charbonneau, Levey, Fishhook, and Windust Parks, and upstream of the Ice Harbor navigation lock. All docks and crib walls are kept free of tripping hazards. Scheduled improvements to these boating facilities are discussed in Section 5.

10.10 Beaches and Swimming Areas.

Charbonneau, Levey, Fishhook, and Windust Parks have designated swimming areas. At Levey and Windust Parks, the swimming areas are clearly marked by floating booms to keep bathers and boaters separated. At Charbonneau and Fishhook Parks, a floating breakwater dock serves as a separation between the swimming and boating areas. Floating and submerged debris is removed and the beach is cleaned to remove hazardous objects. Water quality is monitored and maintained at or above those standards specified in the standard operating procedures for monitoring water quality at swimming areas managed by the Corps of Engineers.

10.11 Project Roads and Parking Areas.

Gravel roads and parking lots are graded and resurfaced as needed. Paved roads and parking lots, however, require less maintenance. Cracks and potholes in paved roads and parking lots should be filled and sealed at the earliest convenience. Guard posts, wheel stays or other barriers are installed where there is a danger of vehicles accidentally rolling into developed areas or over embankments. Traffic control lines are painted on roads and parking lots in areas of heavy visitor use. The U.S. Department of Transportation publication Manual on Uniform Traffic Control Devices contains guidelines for traffic control devices.

Whenever a parking area is designed, constructed, or improved, the site should be planned to accommodate the needs of physically handicapped individuals. Guidance for the design of facilities is contained in EM 1110-1-103, "Design for the Physically Handicapped."

10.12 Trails, Paths, and Sidewalks.

All deteriorated pathways are repaired to maintain safe and easy travel. Tripping hazards are identified and eliminated. Steps are maintained in a safe condition at all times. Handrails are provided where needed, in accordance with latest safety requirements. Trees, shrubs, and bushes interfering with normal safe foot travel are trimmed. Fallen trees and limbs are removed from all pathways as soon as possible. Noxious and poisonous plants are removed to a distance of five feet or more from the trail's edge. Consideration should be given to the design and installation of ramps and paved walkways to accommodate physically handicapped individuals where necessary. Site planning guidelines are contained in EM 1110-1-103, "Design for the Physically Handicapped."

10.13 Signs.

All signs are constructed and placed in accordance with the North Pacific Division's Sign Manual (NPDR 1130-2-6). Appendix E - Sign Plan contains the basic objectives, inventory, replacement schedule, and five year plan of the project signing program. Signs are requisitioned from the Division Sign Shop.

10.14 Potable Water.

All recreation areas on the Ice Harbor Project, except Matthews, have potable water. Requirements for the operation and testing of potable water systems are contained in ER 1130-2-407. The sampling of potable water systems for chlorine residual and coliform bacteria is done no less than once per month by members of the resource management staff. One sample is taken for each pumphouse at the furthest point on the water system line from the pumphouse. Water samples are then delivered to the Benton-Franklin District Public Health Department (1005 Goethals Drive, Richland, WA) for analysis. Samples are taken once every three years for nitrate levels.

10.15 Irrigation Systems.

All turfed areas on the Ice Harbor Project have irrigation systems. The systems at Charbonneau Park and Ice Harbor Dam are automated, while manually operated systems are used at the Levey, Fishhook, and Windust Parks. A portion of the system in the campground at Fishhook Park is automated. The operation of irrigation systems is coordinated to minimize conflict with recreationists.

Sprinkler heads are located at or near ground level to minimize tripping hazards and foot injuries.

Section 11 - Visitor Assistance

11.01 Introduction.

The purpose of the visitor assistance program is to provide safe and healthful recreation opportunities while protecting and enhancing the project resources. Various aspects of this program include:

- o providing assistance to the public as needed;
- o enforcement of rules and regulations contained in Part 327 of Title 36 of the Code of Federal Regulations; and
- o detection of encroachments, erosion, fires, pollution, pests, health and safety hazards, and needed repairs and maintenance of facilities and equipment.

11.02 Public Information and Assistance.

All resource management personnel participate in this aspect of the visitor assistance program. Duties include answering technical questions about the dam, powerhouse, and navigation lock, questions about the fish and wildlife populations, giving directions, providing first aid treatment, and general assistance in emergencies. The following facilities, information, and programs are utilized on the Ice Harbor Project.

a. Brochures and Pamphlets.

A lot of information is available to the public in the form of pamphlets and brochures. These may be requested by mail or picked up at the Ice Harbor Visitor Center or Project Office.

b. Ice Harbor Visitor Center.

This facility contains interpretive exhibits and displays which describe and explain the operation of the project. Information is presented on fish and wildlife populations and habitats, recreation, hydro-electric power production, and navigation.

c. Campground Directories.

Information on the campgrounds at Charbonneau and Fishhook Parks is provided to several national campground directories annually by the Natural Resource Management Branch in the district office.

d. Walla Walla District Recreation Facilities Guide.

This book contains a wealth of information on recreation areas on Corps of Engineers projects in the Walla Walla District. It is updated and published annually by the Natural Resource Management Branch in the district office and is distributed to all Corps project offices, lessees, local Chambers of Commerce and libraries.

e. Safe Boating Programs.

National Safe Boating Week is observed during the first week of June each year with public service announcements provided to the local media and special signing at recreation areas. These activities are coordinated with the local Coast Guard Auxiliary.

f. Information Kiosks.

Information kiosks are planned for construction and installation at all recreation sites. These will contain information for the public including a copy of Title 36 rules and regulations. They are discussed in Appendix E - Sign Plan.

g. Local News Media.

Local television and radio stations and newspapers are used by the project resources staff to disseminate public information and announcements.

11.03 Communications.

a. Phones.

Public telephones are located at Charbonneau, Fishhook, and Levey Parks and at the Ice Harbor Visitor Center. A list of appropriate emergency telephone numbers such as fire, police, ambulance, Coast Guard, and the project office are located near these phones.

b. Radios.

There are two-way radios in the Project Engineer's vehicle, and the Resource Manager's, Asssistant Resource Manager's, Park Rangers', and the Park Technicians's vehicles. In addition, there are radios in some of the maintenance vehicles as well as the LCM and jet work boat. Portable two-way radios are used by the Resource Manager, Assistant Resource Manager, Park Rangers, Park Technician, Control Room Operators, and Navigation Lock Operators.

11.04 Surveillance.

The purpose of surveillance is to detect violations of Title 36 (Code of Federal Regulations) regulations, violations of other Federal, state and local laws, encroachments, outgrant violations, erosion of project land, fires, pollution, pests, health and safety hazards, and needed repairs and maintenance of facilities and equipment.

a. Title 36 Regulations.

Enforcement of Title 36 regulations is the basis of the citation program which is discussed in Section 11.06.

b. Other Federal, State, and Local Laws.

Enforcement of Federal, state, and local laws other than Title 36 regulations is discussed in Section 11.07.

c. Encroachments.

An encroachment may be defined as all permanent or semi-permanent unauthorized uses or occupations of Government fee-owned or easement lands. In most cases, encroachments are discovered by project personnel in the field. However, encroachments may also be discovered by Real Estate Division personnel during outgrant inspections, District Natural Resource Management Branch personnel, and other employees. All encroachments should be reported directly to the Resource Manager as soon as possible.

Encroachments are handled in accordance with NPDR 405-1-4, "Detecting, Reporting, and Resolving Encroachments on Civil Works Projects." Other references specific to the Walla Walla District projects are NPWOM 20-1-4 and NPWDP 1130-1-1.

d. Outgrant Violations.

This is the joint responsibility of Operations and Real Estate Division. Real Estate Division personnel conduct compliance and utilization inspections periodically to ensure that outgranted lands are being managed in accordance with the terms of their agreement. They should coordinate their inspections with the Resource Manager and a project employee should accompany the realty specialist.

In addition, project personnel should include monitoring outgranted lands for violations of the terms of the agreement with their normal surveillance duties. Upon detection of violations, contact should be made with Real Estate Division.

e. Fires.

Fires should be reported and handled in accordance with Appendix C - Fire Protection Plan.

f. Pollution.

The discharge of pollutants in Lake Sacajawea is reported to the U.S. Coast Guard local headquarters in Kennewick (582-7081). This subject is discussed further in Appendix D - Safety Plan.

g. Pests.

Refer to Section 12 of this appendix for pest control procedures.

h. Health and Safety Hazards.

All project personnel should be alert during the course of their normal duties for potentially hazardous health and safety situations. Health and safety standards are outlined in Appendix D - Safety Plan. If the situation cannot be remedied at the time it is detected, then either a sign should be constructed to warn people or the area should be roped off to prevent visitor or employee access.

11.05 Training.

Formal training in the techniques and procedures of citation authority is part of the OCE Visitor Assistance Training Course. This course was first offered in the spring of 1979.

A shortened training course for temporary and seasonal personnel may also be conducted when needed by either the North Pacific Division Office or the Walla Walla District Office.

11.06 Citation Program.

a. Personnel.

Section 234 of P.L. 91-611 gives persons designated by the Chief of Engineers the authority to issue citations for violations of the rules and regulations adopted by the Secretary of the Army. These rules and regulations are contained in Part 327 of Title 36 of the Code of Federal Regulations.

At this project, the Resource Manager, Assistant Resource Manager, Park Rangers, and the permanent Park Technician have citation authority.

b. Policy.

The citation program is executed in accordance with ER 1130-2-420, "Visitor Assistance Program" (10 May 1979). It is the policy of the Chief of Engineers to maintain a low-key profile on Corps enforcement activities.

Maximum use of oral and written warnings is made in minor cases. Project personnel with citation authority may not carry weapons or make arrests while on duty. Whenever possible, Federal, state, and local law enforcement authorities are used to provide law enforcement on project land and water.

c. Uniforms and Equipment.

All Corps employees with citation authority wear the uniforms prescribed in OCE Supplement 1 to AR 670-10. Their vehicles are equipped with a radio, fire extinguisher, emergency first aid kit, and flares or other roadsisde warning devices. Project information brochures and copies of Title 36 regulations and the Privacy Act should be carried in the vehicles for distribution to visitors.

d. Procedures.

Citations are issued in accordance with procedures described in ER 1130-2-420. As stated previously, oral warnings and warning citations which carry no penalty will be used for minor infractions.

Under circumstances where an incident represents both a violation of the Code of Federal Regulations (Title 36, Part 327) and a state law or county ordinance, the incident should be reported to the appropriate law enforcement agency for citation under the applicable state or county statute and where appropriate, the violator may be cited under Title 36 as well.

Written warnings are issued on ENG Form 4381, Warning Citation, with quarterly summaries forwarded to the Walla Walla District Office, ATTN: Natural Resource Management Branch. In more serious situations, a violation notice is issued, using DD Form 1805. Guidance on the use of this form is included as a NPD supplement to ER 1130-2-420.

An Incident Report, ENG Form 4337, is prepared on every Violation Notice issued. The Incident Report shows all information contained on the Violation Notice (Violation Notice number, date of violation,

violation charged, alleged violator's name and address, etc.) plus names of witnesses, if any, and any additional facts deemed appropriate and useful in the event that the alleged violator requests an appearance before the U.S. Magistrate. The original Incident Report is forwarded to the District Security Officer with a copy to the Walla Walla District Office, ATTN: Natural Resource Management Branch.

11.07 Coordination with Other Agencies.

In the original acquisition of land at the Ice Harbor Project, the Corps of Engineers obtained proprietary interest only. Individual state, county, and Federal law enforcement agencies retained statutory authority and inherent responsibility for law enforcement on project lands.

Law enforcement on the Ice Harbor Project is provided by the F.B.I., U.S. Coast Guard, Washington State Patrol, and the Franklin and Walla Walla County Sheriffs. The F.B.I. is responsible for enforcing Federal laws, the Coast Guard enforces safe boating regulations, and county sheriffs take responsibility for other state laws and county ordinances.

Violations of these laws are reported to the appropriate authorities. Telephone numbers are included in the Law Enforcement Directory which follows. Contact is made directly by public phone, or indirectly by contacting the Ice Harbor Control Room Operator who will relay the message to the appropriate authority.

LAW ENFORCEMENT DIRECTORY

F.B.I. (Seattle)..... 206-622-0460
U.S. Coast Guard (Kennewick)..... 582-7081
Washington State Patrol (Kennewick)..... 783-6102
Franklin County Sheriff (Pasco)..... 545-3500
or 911
Walla Walla County Sheriff (Walla Walla)..... 525-0410
or 545-8441

Ice Harbor Control Room Operator
Telephone..... 547-7783
Radio..... WUJ 42
Code Call..... 80-111

11.08 Contract Law Enforcement.

In accordance with Section 120 of the Water Resource Development Act of 1976 (P.L. 94-587) and ER 1130-2-418, the Corps was authorized to contract with local law enforcement agencies for additional surveillance and law enforcement at water resource development projects for a two year trial period. Public Law 96-536 extended this authority to contract for law enforcement from 1981 on. Funds for this program came out of the regular project O&M budget during FY 1978 and FY 1979.

During FY 1978 and FY 1979, contracts were in effect with the Walla Walla and Franklin County Sheriffs, which provided additional patrols at all Corps-operated recreation areas in these two counties. The costs of these contracts were divided between the Ice Harbor, McNary, Lower Monumental and Mill Creek Project budgets with 50 percent of contract costs charged to the Ice Harbor Project.

There were no law enforcement contracts in FY 1980 and 1981 but money is budgeted for FY 1983-87. An estimated $22,000 is budgeted for law enforcement contracts on the Ice Harbor Project annually for FY 1983-1987. This figure is based on the figure budgeted for FY 1982.

Section 12 - Pest Control

12.01 Pesticide Application.

The policy for the pest control program is contained in ER 1130-2-413 and NPD Supplement 1. The Resource Manager is responsible for the organization and supervision of the pest control program and ultimately for the safe and proper application of pesticides on project lands. Pesticides are applied only in areas designated by the Resource Manager. At least one member of each spray crew must be certified; pesticides may be applied by non-certified employees provided they are directly supervised by a certified individual. All pesticide applications must be recorded on NPW Form 537 and copies must be furnished to the District Office on the first of each month.

The selection of chemicals and methods of application should be based upon information in the following references: University of Idaho (1978), Washington State University (1978a), and Washington State University (1978b).

Preventive safety measures for the handling and application of pesticides are contained in Appendix A of ER 1130-2-413. These safety measures should be strictly followed. Other safety precautions are contained in University of Idaho (1978), Cornell University (1974), and the NAVFAC Technical Training Center Manual. At least one copy of each of the references mentioned above is retained by the Resource Manager at the Ice Harbor - Lower Monumental Project Office.

Every effort is made to mix only as much pesticide as is needed for the day's spray activities and to finish the day's spray activities with an empty tank. This makes it necessary to accurately calculate the acreage to be sprayed and the amount of mixed spray solution needed.

In areas where pesticides have been applied and a reasonable chance exists that the visiting public will come into contact with potentially harmful pesticide residues, an effort will be made to inform visitors that the area has been sprayed. Well in advance of pesticide applications in high-use areas or other areas where the public is likely to observe the application or come into contact with the treated area, a public announcement will be provided to appropriate news media. Such announcements should be coordinated with the district Public Affairs Office. Sprayed areas will be appropriately marked with

portable signs stating that the area has been sprayed and visitors should keep out. The manufacturer's label often specifies a period of time during which residues are potentially dangerous. The signs should remain in place during this interval.

12.02 Pesticide List.

The following list contains the common and brand names of herbicides and insecticides currently used in the Walla Walla District:

Herbicides

Common	Brand
2,4-D	DMA
BROMACIL and DIVRON	KROVAR
COPPER CHELATE	CUTRINE PLUS
DICAMBA	BANVEL, TRI-CORNOX
DICHLOBENIL	CASORON
DIQUAT	ORTHO DIQUAT, REGLONE
ENDOTHALL	AQUATHOL
GLYPHOSATE	ROUNDUP
MONURON	TELVAR
*PICLORAM	*TORDON
SIMAZINE	PRINCEP, AQUAZINE
XYLENE	SOCAL

Insecticides

Common	Brand
CARBARYL	SEVIN
*CHLORPYRIFOS	*DURSBAN
DIAZINON	DIAZINON
FENTHION	BAYTEX, TIGUVON, BAYER
MALATHION	CYTHION
RONNEL	KORLAN, TROLENE

* - Restricted Use Pesticide

12.03 Common Pests.

The list below is a compilation of the most common pests on the Ice Harbor Project.

Insects	Plants
Mosquitos	Scotch Thistle
Wasps and Hornets	Bull Thistle
Black Widow Spider	Canada Thistle
Tent Caterpillars	Common Burdock
Aphids	Field Sanbur
Red Spider Mites	Poison Hemlock
Scale	Puncturevine
	Russian Thistle
	Morning Glory

Mammals	Aquatic Plants
Moles	Pond Weeds (Potomogeton
Gophers	spp., Elodea sp.)

12.04 Rattlesnakes.

The Northern Pacific Rattlesnake (Crotalus viridis oreganus) is a member of the wildlife community indigenous to southeastern Washington and inhabits the talus slopes and rock outcrops along the Snake River. Here they play a necessary and important role in the local food web. The small mammals such as deer mice (Peromyscus maniculatus) are preyed upon by rattlesnakes which, in turn, are preyed upon by the native birds of prey (i.e., red-tailed hawks and prairie falcons).

Although this rattlesnake is the only snake indigenous to Washington State with venom of sufficient strength to warrant concern for human health, the snake is believed to be of no serious threat to the safety of project visitors because of its reclusive character. While the snake is not scarce in this area, they are rarely observed in developed recreation areas.

In a study of wildlife along the Snake River conducted by the University of Idaho (Asherin and Claar; 1976), this species was observed in the area although most individuals of this species were found on the upper and middle Snake River. The Northern Pacific Rattlesnake prefers rim rocks and talus slopes for denning which are less common on the Ice Harbor Project than areas on the upper and middle Snake River.

Therefore, there is no need to develop a rattlesnake control program on this project. However, in rare, isolated instances where a rattlesnake ventures into an intensively managed recreation area and poses an imminent threat to the safety of visitors, the snake may and should

be removed. Indiscriminate or unwarranted extermination of rattlesnakes is not permitted.

12.05 Training.

At least one employee in each spray crew must be properly trained in pesticide application. The current Division policy for training and certification of pest control personnel requires successful completion of State requirements for pesticide applicator's certification. In Washington, this includes attending a course offered by the Washington State Department of Agriculture and passing the State pesticide applicator's licensing examination. Training requirements are specified in NPD Supplement 1 to ER 1130-2-413 dated 30 March 1982.

12.06 Transportation of Pesticides.

Pesticides may be transported in vehicles in metal containers provided that they are tightly and securely closed and properly blocked and secured. Non-compatible hazardous materials should not be carried in the same vehicle. Proper Department of Transportation placards (DANGER, POISON, WARNING, or CAUTION) should be placed on vehicles carrying over 1,000 pounds of pesticides. Drivers should also make certain that these containers will not be damaged by other freight or by nails or rough sides and flooring within the vehicle. The storage area of the vehicle must be well ventilated and separate from the passengers' compartment and pesticides should not be carried along with foodstuffs or other contaminable cargo.

Pesticides transported by project boats must be in watertight metal containers secured in place on deck in a well ventilated area separate from the cabin. Other precautions listed in the paragraph above should be followed also when transporting pesticides by boat.

12.07 Storage of Pesticides.

There are no pesticides stored at the Ice Harbor Project. Those used for the pest control program here are stored at the Pasco Maintenance Shop (McNary Project).

12.08 Disposal of Pesticide Containers.

The disposal of empty pesticide containers must be coordinated with the local county health departments. All containers should be triple-rinsed and those in good condition should be returned to pesticide suppliers that

accept them for reuse. Otherwise, glass containers should be broken and metal containers should be crushed and punctured, then disposed of in a state approved chemical disposal site. The Pasco landfill is the nearest approved site. Combustible containers may be burned provided such burning conforms with label directions and local regulations. Specific Federal recommendations regarding the disposal of pesticide containers are found in 40 C.F.R. 165.9.

12.09 Disposal of Pesticide Wastes.

Excess pesticides are disposed of in accordance with EPA and Washington State Department of Agriculture regulations.

12.10 Record Keeping.

NPW Form 178 is completed for each pesticide application. Copies are kept at the project office and a copy is sent to the District Pesticide Program Coordinator in the district office. These records are retained for five years following the application.

13.01 Introduction.

The Corps of Engineers currently has four distinct areas on the Ice Harbor Project under lease and several other tracts of land under easement for a variety of purposes. In each case, project personnel should be familiar with the terms of these agreements and monitor for compliance. Violations should be reported immediately to the Resource Manager who should then report it to Real Estate Division and Natural Resource and Regulatory Programs Branch at the District Office. A compliance inspection report (ENG Form 3560), maintained by Real Estate Division, lists all outgrants on the Ice Harbor Project.

13.02 Leases.

a. Port of Kahlotus (DA-45-164-CIVENG-63-290).

A 9.47 acre tract along the north shore of Lake Sacajawea is leased to the Port of Kahlotus for operation and development of public port and industrial facilities. The area is operated and managed by the Louis Dreyfus Corporation according to the terms of a fifty year sub-lease between the Port of Kahlotus and the Dreyfus Corporation. The Port of Kahlotus site is downstream of Windust Park; it is allocated for public port and industrial use. Development at this leased area includes grain storage and handling and barge loading facilities.

b. Port of Walla Walla (DA-45-164-CIVENG-62-61).

An area of 1.92 acres at Sheffler, on the south shore of Lake Sacajawea, is leased to the Port of Walla Walla for operation and development of public port and industrial facilities. It is operated and managed according to the terms of this lease. The site is located on a rocky knoll situated between the Snake River and railroad right-of-way; it is allocated as public port and industrial use land. Docking facilities and a grain conveyor have been constructed on the site to service an elevator located across the railroad right-of-way on private land.

c. K2H Farms, Inc. (DACW68-1-79-5).

A 38 acre tract along the south shore of Lake Sacajawea approximately six miles upstream from the Ice Harbor Dam is leased to K2H Farms, Inc. for agricultural purposes. It is operated and managed as a sharecropping venture according to the terms of this five year lease

(1 January 1978-31 December 1982). This land is allocated for moderate wildlife management. Since 1973, the 38 acre tract has been farmed inadvertently together with privately owned leased land; it is a portion of an irrigation circle containing an approximate total of 61 acres. Sharecropping is a method whereby wildlife benefits are gained by allowing a private party to farm Government land. According to the terms of this lease, the lessee will provide cereal grain crop cover on 15 percent of the leased area to benefit wildlife while the remaining 85 percent of the leased area can be farmed and harvested for commercial purposes.

Plans for this area include renewing the lease in 1983, planting trees and shrubs along the outside edge of the leased area, and constructing a bird watering cistern. This development is planned as part of the lower Snake River fish and wildlife compensation plan.

d. Dwight W. Affleck (DACW68-1-77-28).

Approximately 1.5 acres on the south shore of Lake Sacajawea are leased to Dwight W. Affleck for commercial operation of a dry boat storage area for concession purposes. This land is operated and managed by Mr. Affleck according to the terms of this five year lease (1 June 1977-31 May 1982). The dry boat storage area is located within an undeveloped section of Charbonneau Park that is allocated for intensive recreation use. Plans are to renew this lease when it expires in June 1982.

e. Dwight W. Affleck (DACW68-1-81-36).

Mr. Affleck has a three-year lease (1 June 1981-31 May 1984) to operate a commercial boat moorage area in the lake just downstream of Charbonneau Park. To date, there have been approximately ten mooring buoys installed just offshore.

13.03 Easements, Licenses, and Permits.

A multitude of easements, licenses, and permits are issued on the Ice Harbor Project for livestock watering, pumping plants, road right-of-ways, farm equipment crossing, water and gas pipelines, power and telephone lines, a power substation, a fish holding and marking facility, and navigation aids. These are all on file at the Real Estate Division at the District Office. Permits are issued for the construction of fixed structures under provisions of Section 10, River and Harbor Act of 1899 (33 U.S.C. 403) by the Regulatory Functions Section of Operations Division. In addition, permits are issued through the same office for dredging or filling in project waters under the provisions

of Section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) as amended by the Clean Water Act of 1977 (P.L. 95-217).

All applications for easements, licenses, and permits are reviewed by various elements in the District Office. An environmental assessment is prepared by the Fish and Wildlife Section of Planning Branch where appropriate. Environmental assessments are prepared by Operations Division for all Section 10 and Section 404 permits. Consideration is given to potential impacts of the proposed outgrant on fish and wildlife habitat and populations, air and water quality, recreational opportunities, adjacent communities, etc.

13.04 Perpetual Reservations.

Several perpetual reservations were granted on the Ice Harbor Project in lieu of severance payments to landowners who owned lands along the Snake River prior to inundation. These reservations were granted primarily for pumping plants and livestock watering.

Section 14 - Equipment Inventory

Equipment utilized on the Ice Harbor Project is assigned to the Ice Harbor - Lower Monumental Project Office which has administrative responsibilities for the Ice Harbor Project as well as the downstream section of the Lower Monumental Project below the Joso Bridge and the upstream section of the McNary Project above Wallula. Equipment assigned to the Ice Harbor - Lower Monumental Project Office may be utilized anywhere within its administrative jurisdiction. Equipment may also be loaned to and from other projects. This inventory includes all equipment assigned to the Ice Harbor - Lower Monumental Project Office.

ICE HARBOR - LOWER MONUMENTAL
EQUIPMENT LIST

AUTOMOBILES

1	Sedan, 4 x 2
3	Pickup, compact, 4 x 2
13	Pickup, 1/2 ton, 4 x 2
7	Pickup, 1/2 ton, 4 x 2, with radio
2	Pickup, 1/2 ton, 4 x 4
2	Pickup, 1/2 ton, 4 x 4, with radio
2	Pickup, 3/4 ton, 4 x 2
1	Pickup, 3/4 ton, 4 x 2, with radio
2	Pickup, 3/4 ton, 4 x 4
1	Truck, 1 1/2 ton, 4 x 2
1	Carryall, 4 x 2, with radio

AUTOMOBILES (Cont'd)

2	Flatbed, 2 1/2 ton, 4 x 2
1	Flatbed, 6 x 4, with spray rig mounted
1	Truck - Tractor, 5 ton
1	Military cargo truck, 6 x 6
1	Dump truck, 7 1/2 ton, 4 x 2
1	Dump truck, 7 1/2 ton, 4 x 2, with dump trailer

TRAILERS

1	Wisconsin tilt-top trailer, 16 ton
1	Utility trailer, 8 ton, 900 x 15
1	Fayette utility trailer, 4 ton
1	4-wheel, 1 ton
1	Water tank trailer, 5,000 gallon
1	Williamsen
1	Hobart
1	Hustler mower trailer

BOATS

1	LCM - 8 (73 foot)
1	Work boat, 24 foot, with trailer
1	Outboard, 19 foot, with trailer
1	Bellboy, 11 foot, cartopper

CRANES

1	Bay City truck crane, 25 ton
1	Link Belt truck crane, 20 ton
1	Galion, 12 1/2 ton
1	Drott, 5 ton

FORKLIFTS

1	Yale and Towne, 2 ton
1	AC, 1 1/2 ton
1	Hyster

TRACTORS

1	Ford, wheeled, with attachments
1	Caterpillar, crawler, D-7
1	Massey-Ferguson, wheeled
1	John Deere, wheeled, with mower
1	Case, wheeled, with loader
1	Caterpillar, crawler, D-4
1	John Deere, wheeled

COMPRESSORS

1	Worthington, 365 CFM, diesel
1	Quincy, trailer mounted, gas

GRADERS

1	Caterpillar, Model 12-E

PUMPS

1	Hale, centrifugal
1	Berkeley, 600 GPM, JD engine
1	Lanson
1	Homelite, 6-cylinder

WELDERS

1	Hobart

MISCELLANEOUS

1	Cement Mixer
1	John Bean Sprayer, 300 gallon
1	Ditch - Witch Trencher
1	Tractor, Hydro, Hustler XL 272A
2	Hustler Mower
1	Rolling Plow, 10 foot
1	Pulvi-mulcher
1	Shredder
1	Seeder
1	Bush Hog
2	Tanker unit, 1000 gallon
1	Brazing Machine

Section 15 - In-Service Training

15.01 Orientation.

Every new employee hired at the GS 5-11 levels receives an orientation during the first several months of employment. This includes but is not limited to the following:

- o review of ENG Form 3529 (Employee Orientation Checklist) with supervisor;
- o introduction to each of the projects in the Walla Walla District;
- o introduction to the District Office including Operations Division, Natural Resource and Regulatory Programs Branch; Engineering Division, Fish and Wildlife Section, Reproduction Branch, Civil Design Section; Real Estate Division; Procurement and Supply Division; Personnel Office; Office of Counsel; ADP; Safety Office; and the Security Officer; and,
- o (for GS 7-11 levels only) introduction to the Division Office including Operations Division and the Natural Resource Management Branch.

In addition to the above items which must be scheduled in advance by the supervisor, the following tasks are included in an employee's training program and are accomplished by the employee without assistance or advance scheduling:

- o study and review of the Project Operating Manual;
- o study and review of the Master Plans;
- o study and review of pertinent regulations (Section 17) especially ER 1130-2-400;
- o study and review of existing leases of the project;
- o study of state fish and game regulations;
- o study of the history of the project and Walla Walla District;

- o study of Title 36 (CFR) regulations; and,
- o develop a knowledge of tourist attractions within the local area and the entire Walla Walla District (state parks, historical sites, museums, recreation areas, etc.).

The orientation of Wage Grade employees consists of a review of ENG Form 3529 with their supervisor and a tour of the project and related facilities and equipment.

15.02 Continuing Training.

It is the policy of this District, in accordance with ER 350-1-410 (18 May 1977), to provide employees with training on a continuous basis to insure maximum efficiency of all employees in the performance of their official duties and to encourage employees in their efforts for self-improvement. In addition to courses offered by the Department of the Army, there are a variety of interagency courses offered by the Office of Personnel Management and other government agencies. Other training is provided by state and local governments, colleges, universities, private industry, and private organizations. These training courses may be justified on the basis of one of the following criteria:

- o as a result of a change in the Corps' mission or policies;
- o as a result of new technology;
- o as a result of new work assignment;
- o to improve present performance;
- o to meet future staffing needs;
- o to develop unavailable skills;
- o to meet requirements for journeyman status in a trade or craft apprenticeship program;
- o to provide orientation to the policies, purposes, mission, and functions of the Corps of Engineers or the Federal Government; or,

- to provide the employee with basic adult education.

The primary consideration of the continuing training program is to provide training that is required to perform assigned duties more efficiently and to develop an effective work force for future needs. A systematic report of training needs is completed each year by the supervisor and includes training needs and a list of available courses. It is the management, not the employee, who determines whether any particular training will be approved. Approval depends on:

- assessment of the employee's potential and goals;
- linking that potential with assigned or projected duties supporting the organization's program or in support of an approved upward mobility plan;
- demonstrated interest in self-improvement by the employee; and,
- availability of funds for such training.

A concerted effort is made to provide each employee with training necessary to improve their job performance and fulfill their career goals. While final approval of a training program depends upon the supervisor, the training of an employee is basically his/her own responsibility. The desire for self-development and the physical and mental effort necessary to increase his knowledge and skills rest with the individual. All employees, therefore, are capable of and are expected to plan their own career goals in collaboration with their supervisor and take full advantage of the available training opportunities and apply them to their job.

15.03 Summer and Seasonal Personnel Training.

An effort is made to provide training to all summer and seasonal personnel in related fields of interest in addition to the standard training necessary for performance of their job related duties. These employees generally have some academic background in park administration, park management, natural sciences, environmental science, or other related fields. An effort is made to supplement this with some related on-the-job experience.

15.04 Visitor Assistance Training.

Visitor assistance training procedures are discussed in Section 11.07.

15.05 Pest Control Training.

The pest control training requirements are described in Section 12.05.

15.06 Safety Training.

Organized safety meetings are conducted weekly at the project office to provide training in public and employee safety procedures. In addition, each employee is issued a copy of EM 385-1-1, General Safety Requirements Manual.

Section 16 - Funding Requirements

16.01 Introduction.

This section provides an estimate of funding requirements for the Ice Harbor Project for FY 1983 through FY 1987. Major headings for funding requirements are: labor; equipment, materials, and supplies; cultural resources; park maintenance contracts; janitorial service contract; law enforcement contracts; and, the Five-Year Plan. Annual funding requirements are summarized in Section 16.09.

16.02 Labor.

a. Permanent Employees.

There are 20 permanent positions in the Resource Management Section at the Ice Harbor - Lower Monumental Project Office. They are displayed in Table 2.2. An estimate of the total labor costs for permanent employees in FY 1983 was derived from a base of FY 1982 effective labor rates, multiplied by a factor of 1.05. This factor is based on the current projection of a 5% pay increase in FY 1983. By these calculations, an estimated total of $477,000 will be required in FY 1983 to pay permanent employees salaries.

b. Temporary Employees.

There will be approximately 20 temporary positions in the Resource Management Section during FY 1983. They are shown in Table 2.2. Salaries for these positions were derived based upon FY 1982 effective labor rates for the grades shown in the table. The salary for the Summer Aid was computed on a $3.35/hour rate (1982 minumum wage). By this method, an estimated total of $277,000 will be required for temporary employees' salaries in FY 1983. No changes in requirements for temporary personnel are planned between FY 1983 and FY 1987.

c. Overtime.

An estimate of $35,000/year will be required for overtime work by Resource Management Section employees for FY 1983-87.

d. Resource Management Section - Summary.

The total labor costs for Resource Management Section employees at the Ice Harbor - Lower Monumental Project Office will be $789,000 for FY 1983.

However, the total Resource Management Section labor costs are split between the Ice Harbor, McNary, and Lower Monumental Projects since the Project Office's administrative boundary includes the upper section of the McNary Project and the lower section of the Lower Monumental Project in addition to the Ice Harbor Project. Therefore, labor costs are divided among the three projects as follows: Ice Harbor - 40 percent; McNary - 55 percent; and, Lower Monumental - 5 percent.

An estimated $316,000 will be needed for labor costs for the Ice Harbor Project for FY 1983, which represents 40 percent of the Ice Harbor - Lower Monumental Project Office totals for that year.

16.03 Equipment, Materials, and Supplies.
These items are budgeted collectively for the entire project rather than separately for each section. Therefore, no costs for these items are included in the budget for the Resource Management Section.

16.04 Cultural Resources Management Program.
This program is described in Section 6. Funds anticipated for this program consist of contingency funds allocated for emergency work. An annual figure of $2,500 is estimated for this work.

16.05 Park Maintenance Contracts.

a. Restrooms.
In FY 1983, restrooms at Charbonneau, Levey, and Fishhook Parks will be cleaned under maintenance contracts. These contracts are estimated to cost $12,000 each annually. This figure is based on a previous park maintenance contract for Fishhook Park (DACW68-79-C-0069).

b. Garbage Collection.
In FY 1983, garbage will be collected at Charbonneau, Levey, and Fishhook Parks by a local business which will provide dumpsters and regular collection. This service will cost an estimated $3,500 annually at each park, based on FY 1982 costs for this service at Charbonneau and Fishhook Parks.

16.06 Janitorial Service Contract.
The interior of the powerhouse, including office

and administrative facilities, is maintained under a janitorial service contract. This contract also includes maintenance of the visitor center, lockmaster office area at the navigation lock, south fishway area, and restrooms at the former Resident Engineer's Office.

Maintenance duties specified in the contract include sweeping, dusting, mopping, and waxing the floors; vacuuming carpeted areas; cleaning restrooms; washing windows and blinds; and refuse disposal. This contract will cost an estimated $70,000 annually based on the FY 1982 contract.

16.07 Law Enforcement Contracts.

These contracts are described in Section 11.08. The annual budget figure based on 1982 price levels is $22,000.

16.08 Five-Year Plan.

The following are non-routine work items which are described in Section 5 as part of the Five-Year Plan. They are various projects which have been identified as needed on this project. Given sufficient funds and manpower these projects are planned for FY 1983-1987. They are listed in descending order of priority or importance. In general, they will be accomplished in this order depending of course, on availability of funds and manpower and other extenuating circumstances. All projects listed under the Operations and Maintenance Program will be accomplished with O & M funds by resource management personnel or by contract. Cost estimates based on 1982 price levels are given for each project. Those projects to be accomplished under the Code 710 program are listed separately.

Five-Year Plan - Operations and Maintenance Program

1. Levey Park - Construct breakwater across swimming area. Contract: $100,000.
2. Fishhook Park - Install water supply in campground.
3. Charbonneau Park - Extend handling dock.
4. Charbonneau Park - Install tie-up cleats on crib wall.
5. Charbonneau Park - Refurbish concrete dock at swim area.

6. Charbonneau Park - Move marine dump station from Fishhook Park. Contract: $50,000.

7. Levey Park - Construct handling dock.

8. Ice Harbor Dam - Install tie-up dock at downstream end of navigation lock. Contract: $5,000.

9. Ice Harbor Dam - Install tie-up dock at upstream end of navigation lock. Contract: $5,000.

10. Levey Park - Automate irrigation system.

11. Ice Harbor Dam - Paint water tower.

12. Windust Park - Automate irrigation system.

13. Windust Park - Dredge boat launch ramp.

14. Fishhook Park - Automate irrigation system.

15. Windust Park - Regrade swimming beach.

16. Windust Park - Establish primitive camping area.

17. Charbonneau Park - Plant lawn grass and trees between parking area and crib wall.

Five-Year Plan - Code 710 Program

1. Fishhook Park - Replace day-use comfort station. Contract: $125,000.

2. Levey Park - Replace east comfort station. Contract: $125,000.

3. Windust Park - Replace comfort station. Contract: $125,000.

4. Ice Harbor Dam - Construct vault toilet at upstream end of navigation lock. Contract: $25,000.

5. Ice Harbor Dam - Construct vault toilet at downstream end of navigation lock. Contract: $25,000.

6. Windust Park - Install trailer dump station. Contract: $25,000.

16.09 Summary.

Annual Budget FY 1983-1987

Personnel	$316,000
Cultural Resources Mgmt. Program	2,500
Restroom Maintenance Contracts	36,000
Garbage Collection Service	10,500
Janitorial Service Contract	70,000
Law Enforcement Service Contracts	22,000
	$457,000

Section 17 - Recreation - Resource Management Regulations

The following list is a compilation of Corps of Engineers regulations, manuals, and publications applicable to the planning, operation, maintenance, and management of project resources.

Pub. No.	Title (Pub. date)
AR 190-29	Minor Offenses and Uniform Violation Notices Referred to U.S. District Courts (17 June 1977)
AR 385-40	Safety: Accident Reporting and Records (1 July 1972)
AR 405-80	Real Estate: Granting Use of Real Estate (1 August 1978)
AR 670-10	Furnishing Uniforms or Paying Uniform Allowances to Civilian Employees (22 July 1969) esp. OCE Supplement 1 (19 May 1978)
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ER 200-2-2	Policy and Procedures for Implementing NEPA (2 March 1981)
- - - - - - -	
ER 350-1-410	Civilian Personnel Training and Development (18 May 1977)
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ER 405-1-800	Outgrants - General Procedures for Issuance and Administration (10 March 1972)
ER 405-1-830	Leases (24 March 1964)
ER 405-1-840	Easements (24 July 1972)
ER 405-1-860	Licenses (24 February 1964)
ER 405-1-875	Permits to Other Federal Government Agencies (7 May 1973)

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ER 1105-2-20	Project Purpose Planning Guidance (29 January 1982)
ER 1105-2-167	Resource Use: Establishment of Objectives (12 April 1978)
ER 1105-2-180	Wastewater Collection and Treatment Policy (3 November 1975)
ER 1105-2-502	Public Meetings (4 December 1972)
ER 1105-2-509	Statement of Findings on Impacts of Civil Works Action (9 October 1973)
ER 1105-2-800	Public Involvement: General Policies (2 April 1975)

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ER 1110-2-400	Design of Recreation Sites, Areas, and Facilities (7 July 1972)

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ER 1120-2-400	Recreation Resources Planning (1 November 1971)

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ER 1130-2-334	Reporting of Water Quality Management Activities at Corps Civil Works Projects (16 December 1977) (16 December 1977)
ER 1130-2-335	Levee Maintenace Standards and Procedures (5 December 1968)
ER 1130-2-400	Recreation - Resource Management of Civil Works Water Resource Projects (28 May 1971)
ER 1130-2-401	Visitor Center Program (30 October 1981)
ER 1130-2-404	Recreation Use Fees (29 May 1981)
ER 1130-2-405	Use of Off-Road Vehicles on Civil Works Projects (17 January 1974)

ER 1130-2-406	Lakeshore Management at Civil Works Projects (13 December 1974)
ER 1130-2-407	Operating and Testing Potable Water Systems (10 June 1977)
ER 1130-2-409	Recreation Development at Completed Projects Annual Report on Code 710 Program Obligations (1 September 1977)
ER 1130-2-411	Regulation of Seaplane Operations at Civil Works Water Resource Development Projects (15 November 1977)
ER 1130-2-412	Aquatic Plant Control Program (28 May 1976)
ER 1130-2-413	Pest Control Program for Civil Works Projects (1 February 1982) and NPD Supplement 1 (30 March 1982)
ER 1130-2-414	Recreation Resource Management System (1 November 1977)
ER 1130-2-415	Water Quality Data Collection, Interpretation, and Application Activities (28 October 1976)
ER 1130-2-417	Major Rehabilitation Program (8 April 1977)
ER 1130-2-418	Law Enforcement Service Contracts at Civil Works Water Resource Projects (8 December 1977)
ER 1130-2-419	Dam Operations Management Policy (18 May 1978)
ER 1130-2-420	Visitor Assistance Program (10 May 1979) and NPD Supplement 1 (25 August 1981)
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ER 1145-2-301	Use of Navigable Waters Policy, Practice and Procedure (1 July 1968)
ER 1145-2-303	Permits for Activities in Navigable Waters or Ocean Waters Policy, Practice and Procedure (3 April 1974)

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ER 1165-2-1	The Federal Responsibility in Water Resources Development (9 November 1964)
ER 1165-2-2	Consideration of Aesthetic Values in Water Resource Development (6 March 1967)
ER 1165-2-112	Streamflow Regulation for Water Quality Control (26 June 1964)
ER 1165-2-116	Pollution Control at Civil Works Projects (28 February 1968)
ER 1165-2-302	Definition of Navigable Waters of the United States (11 September 1972)
ER 1165-2-400	Recreational Planning, Development, and Management Policies (3 August 1970)

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EP 1130-2-400	Lakeside Campgrounds (1 June 1972)
EP 1130-2-401	Recreation Statistics (June 1978)
EP 1130-2-417	Visitor Center Management System (VCMS) (30 October 1981)
EP 1165-2-501	Environmental Policies, Objectives, and Guidelines for the Civil Works Program of the Corps of Engineers (29 October 1976)

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EM 385-1-1	General Safety Requirements (1 June 1977)
EM 1110-1-103	Design for the Physically Handicapped (15 October 1976)
EM 1110-2-38	Environmental Quality in Design of Civil Works Projects (3 May 1971)
EM 1110-2-400	Recreation Planning and Design Criteria (1 September 1971)

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NPDR 385-1-10	Safety Administration Manual (27 September 1976)
NPDR 1130-2-5	Recreation Cost-Sharing Contracts -Code 710 (15 September 1979)
NPDR 1130-2-6	North Pacific Division Sign Manual (15 September 1981)
NPDR 1130-2-400	Posting of Title 36, Part 327 - Rules and Regulations (9 May 1973)
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WWDR 1105-2-1	Environmental Awareness (28 January 1974)
WWDR 1180-1-5	Reporting Discovery of Human Remains (Burials) and Items of Archaeological Significance (20 September 1977)

Section 18 - References

Asherin, Duane A. and James J. Claar. 1976. Inventory of Riparian Habitats and Associated Wildlife along the Columbia and Snake Rivers. Volume IIIA. University of Idaho Cooperative Wildlife Research Unit; Moscow, Idaho.

Brooks, Kenneth R. and Karen L. Johnson. 1978. Lewiston Levee Horticultural Study: Recommendations for Landscape Maintenance. Washington State University Department of Horticulture and Landscape Architecture; Pullman, Washington.

Chandler, W. H. and R. D. Cornell. 1952. Pruning Ornamental Trees, Shrubs, and Vines. University of California Agricultural Extension Service. Circular No. 183. Davis, California.

Cleveland, Gregory; Bruce Cochran; Judith Giniger; and Hallet Hammett. 1976. Archaeological Reconnaissance on the Mid-Columbia and Lower Snake River Reservoirs for the Walla Walla District Army Corps of Engineers. Project Reports 27. Washington Archaeological Research Center; Pullman, Washington.

Cornell University. 1974. Pesticide Applicator Training Manual. Cornell University; Ithaca, New York.

Davey, K. L. 1967. Pruning Mature Trees. Western Landscaping News 7(12):14.

Harris, Richard W.; W. Douglas Hamilton; William B. Davis; and Andrew T. Leiser. 1969. Pruning Landscape Trees. University of California Agricultural Extension Service. Leaflet No. 2574. Davis, California.

Hudson, R. L. 1952. Sunset Pruning Handbook. Lane Books; Menlo Park, California.

Law, A. G.; K. J. Morrison; A. R. Halvorson; and C. D. Fanning. 1972. Fertilizer Guide: Home Lawns, Playfields and Other Turf. FG-24. Washington State University Cooperative Extension Service; Pullman, Washington.

Stratton, David H. and Glen W. Lindeman. 1976. A Cultural Resources Survey for the United States Corps of Engineers, Walla Walla District. Project Reports 28. Washington Archaeological Research Center; Pullman, Washington.

Training Manual for NTTC Course 150. Basic Pest Control Technology. NAVFAC Technical Training Center; Norfolk, Virginia.

University of Idaho. 1978. Pacific Northwest Pest Control Handbook. University of Idaho; Moscow, Idaho.

U. S. Army. 1975. Lower Snake River Fish and Wildlife Compensation Plan - Lower Snake River, Washington and Idaho. U. S. Army Corps of Engineers, Walla Walla District; Walla Walla, Washington.

U. S. Army. 1977. Ice Harbor Master Plan. U. S. Army Corps of Engineers, Walla Walla District; Walla Walla, Washington.

U. S. Army. 1982. Walla Walla District Recreation Facilities Guide. U. S. Army Corps of Engineers, Walla Walla District; Walla Walla, Washington.

U. S. Army. 1981. North Pacific Division Sign Manual (NPDR 1130-2-6, 15 September 1981). U. S. Army Corps of Engineers, North Pacific Division; Portland, Oregon.

U. S. Department of Transportation, Federal Highway Administration. 1978. Manual on Uniform Traffic Control Devices. U. S. Government Printing Office; Washington, D.C.

Washington State University. 1978a. Pacific Northwest Insect Control Handbook. Washington State University College of Agriculture; Pullman, Washington.

Washington State University. 1978b. Weed Control Handbook. Washington State University College of Agriculture; Pullman, Washington.