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WETLAND REGULATORY COMPLIANCE: A GUIDANCE MANUAL

FOR THE

NATIONAL PARK SERVICE, MID-ATLANTIC REGION

Prepared by:

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National Park Service
Water Resources Division

For the:

NPS Mid-Atlantic Region
Resources Management and
Visitor Protection Division

October 1989

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I. INTRODUCTION

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The term "wetland" encompasses a broad array of aquatic systems. To some, wetlands are typified by the cattail- or reed-dominated zone bordering many freshwater ponds and lakes. To others, the term conjures images of cypress swamps, coastal marshes, estuarine flats, or mangrove forests. Such diversity of wetland habitats, along with the relatively recent recognition of the need for their study and protection, has led scientists, natural resource managers, and regulatory agencies to develop different definitions of "wetlands" to suit their particular focuses. Several of the more technical definitions pertinent to National Park Service (NPS) wetland compliance are presented in chapter VII of this manual. However, for introductory purposes, Cowardin et al. (1979) present a simple definition of wetlands as:

> **"...lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface."**

Wetland functions and values may be as diverse as wetland types. Wetlands exhibit varying degrees of flood attenuation, water purification, fish and wildlife habitat, erosion control, recreation opportunity, aesthetics, education/research opportunity, and economic benefit. But, other values realized through development by man have predominated. Drainage, filling, mining, reservoir construction, stream channelization, and other actions have contributed to outright wetland loss and the degradation of many remaining U.S. wetlands.

Wetlands once covered as much as 215 million acres of the conterminous United States (Roe and Ayres, 1954), but by the mid-1970's totaled less than half that area. The average annual loss of wetlands nationwide from the mid-1950's to the mid-1970's was 458,000 acres (Frayer, et al. 1983). During this period, as many as 137,000 acres of inland vegetated wetlands and 19,000 acres of coastal wetlands were lost within the Mid-Atlantic states (Virginia, West Virginia, Delaware, Pennsylvania, and Maryland) alone (Tiner, 1987). Federal and state laws are making some headway in slowing the loss of several wetland types, and others such as ponds and inland flats appear to be making gains. But large net wetland losses continue in the U.S., primarily due to aspects of agricultural and other development activities that remain largely unregulated.

A. The Role of the National Park Service in Wetlands Protection

Since its creation, the NPS has been involved in preserving wetlands through its mandate to "...conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations" [16 USC 1 (1982)]. In that regard, NPS managers must protect wetlands and other water resources from the impacts of **external actions** including:

-- lowered water tables (adjacent wellfield withdrawals, agricultural drainage, mining operations),

-- changes in the timing, distribution, or amount of water supplying park wetlands (upstream diversions, reservoir releases, land use),

-- deleterious changes in water quality associated with runoff from agriculture (nutrients, pesticides), urban/industrial areas (heavy metals, synthetic organics, nutrients), or mining (metals, sediment, acidity), and

-- introduction of exotic plant or animal species.

However, the NPS itself may carry out actions **internally** which could adversely impact park wetlands and other aquatic resources. Such actions may include:

-- construction of the park's infrastructure (maintenance facilities, housing, visitor centers, roads),

-- maintenance operations (disposal of treated sewage, dredging projects, water supply well withdrawals, drainage systems)

-- resource management operations and policies (exotic pest control, prescribed burns, off-road vehicles), and

-- activities by inholders or permitted uses (mining, agriculture, grazing).

NPS guidance for balancing the need for wetlands preservation against the need for other internal management actions is primarily derived from the Executive Order for "Protection of Wetlands" (E.O. 11990). The Order recognizes the national trend toward destruction and degradation of wetlands, directing each federal agency to provide leadership in wetlands protection and to "...take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities." Chapter V of this manual discusses provisions of the Order and of the "NPS Floodplain Management and Wetlands Protection Guidelines" which implement the Order.

NPS actions must also be in compliance with a number of other laws and regulations that either directly or indirectly protect wetlands (see chapter III). For example, Section 404 of the Clean Water Act of 1972 requires a permit for discharge of dredged or fill material into the waters of the United States, **including wetlands** (see chapter VI). Wetland impacts must also be addressed as part of compliance with the National Environmental Policy Act of 1969 (NEPA), which requires consideration of alternatives for certain proposed federal actions that would allow beneficial use of the environment with a minimum of environmental consequences. Also, states maintain limited authority over some NPS actions affecting wetlands (see chapter III(B)).

B. Purposes of the Manual

A primary purpose of this manual is to summarize, in one document, the NPS requirements for complying with Executive Order 11990, the NPS Floodplain Management and Wetlands Protection Guidelines, Section 404 of the Clean Water Act, and other federal, state or local laws and regulations protecting wetlands. No attempt is made in this manual to reproduce the text or flow diagrams found in NPS-12 "National Environmental Policy Act Guideline." However, where provisions and guidelines for implementation of the Clean Water Act and E.O. 11990 affect NPS-12 procedures, appropriate supplemental information is provided.

A second major purpose of the manual is to provide supplemental information to aid in compliance with the NPS Floodplain Management and Wetlands Protection Guidelines and other wetland laws and regulations. For this purpose, chapter VII includes guidance for conducting the required wetland inventory, for conducting preliminary on-site wetland evaluations in the field, and for definitive wetland delineation.

C. How and When to Use the Manual

The manual uses flow diagrams to guide park personnel through a sequence of steps that assures compliance with wetland planning and compliance requirements and consistency with state or local laws. These diagrams refer the user back to the specific sections of the text that explain the procedures in more detail. (The figures and text include processes applicable in **emergency situations**.) Jurisdictional boundaries of U.S. Army Corps of Engineers (COE) District Offices and U.S. Fish and Wildlife Service (FWS) Field Offices are included in Figure 1 to indicate the appropriate contacts at various steps in the compliance process. Office addresses and phone numbers are found in Appendix 1.

The manual may be used in several ways. **First**, it should be read by superintendents, environmental compliance officers, resource management specialists, and maintenance supervisors to increase awareness of wetlands and of the policies, laws, and regulations governing them. Reference to the manual early in the park planning process will help avoid actions in or adjacent to wetland habitats, and may eliminate the need for potentially cumbersome wetland compliance procedures. **Second**, the manual serves as a planning and regulatory compliance reference for situations where actions (including contracted or cooperative projects) that adversely impact wetlands cannot be avoided. In such cases, early reference to the manual is highly recommended since it may take 180 days or longer to obtain any required permits. **Third**, the manual includes procedures for handling **emergency actions** affecting wetlands, a source of considerable confusion and conflict between parks and regulatory agencies in the past. **Fourth**, it may be used as a management reference where activities in aquatic habitats outside park borders present a threat to NPS wetland resources.

Figure 1 (a). Jurisdictional Boundaries of COE District Offices (addresses/phone numbers in Appendix 1b)

Figure 1 (b). U.S. Fish and Wildlife Service Field Offices (addresses/phone numbers in Appendix 1c)

II. WETLAND TYPES, FUNCTIONS, AND VALUES

II. WETLAND TYPES, FUNCTIONS, AND VALUES

This chapter provides general background on the types of wetlands found in the Mid-Atlantic Region and where they tend to be found. (Means of recognizing wetland characteristics in the field are presented in chapter VII.) It also summarizes the significant functions and values that may be lost if wetlands are degraded or destroyed.

A. Wetland Origins

Kusler (1983) lists six principal processes that create wetlands and the general areas in which these wetlands are likely to be found:

1. Glacial processes. A significant proportion of wetlands across the northern states were created by glacial processes. One such process was the melting of glacial ice chunks 9000-12,000 years ago. This created depressions in the various soil deposits and landforms left behind by the receding glaciers. These depressions often filled with water due to their impermeable substrates or due to intersection with the water table. Other larger wetlands were formed when glaciers dammed rivers, scoured river valleys and impounded waters. In cases where these impoundments have partially drained or filled with sediment, large low-lying wetland areas often remain.

2. Inundation of Wave Protected Coastal Lowlands. A large number of wetlands along the Atlantic and Gulf Coasts are found in low-lying areas that are protected from wave action by harbors, barrier islands, or reefs. They especially tend to form near the mouths of rivers or streams and within estuaries. Marshes on the landward side of Assateague Island are a good example of these coastal wetlands.

3. Erosion and deposition by rivers. Wetlands may be formed by a variety of erosion and sediment deposition processes within the floodplains of low gradient rivers and streams. These wetlands tend to change over time as large floods scour the floodplain, as rivers or streams form new channels, or as material is deposited during lesser flood events.

4. Beaver dams. As regulations protecting beavers and their habitats increase, small wetlands formed by these dams are increasing. The dams may last in excess of 100 years, though many are more short-lived.

5. Man's activities. Creation of reservoirs, farm ponds, and other water supply or flood control features, highway construction (borrow pits, fill that blocks drainage), mining operations and many other activities create and sustain wetlands. In addition, wetlands are created intentionally by federal, state, and local agencies or by conservation groups.

6. Miscellaneous processes. These include dissolution of bedrock to form depressions (particularly in limestone), wetlands associated with seeps, springs, or waterfalls, low areas formed by wind erosion, and other such processes.

B. Wetland Classification

The U.S. Fish and Wildlife Service publication "Classification of Wetlands and Deepwater Habitats of the United States" (Cowardin et al., 1979) is a recognized standard for wetland classification. This method first divides wetlands into five main ecological systems (marine, estuarine, riverine, lacustrine and palustrine), and then subdivides these into sub-systems and classes by hydrologic, vegetation, soil, and other characteristics. The following descriptions of the more common wetland classes found in the NPS Mid-Atlantic Region are modified from Kusler (1983), Cowardin et al. (1979), and other sources.

1. Forested wetlands. Forested wetlands are those dominated by trees six meters or more in height. They are the most common wetland type in the Mid-Atlantic Region (Tiner, 1987), where they tend to be found in glaciated regions, in mountainous areas, and along low gradient meandering streams, particularly in the southeastern portion of the region. Deciduous forested wetlands in northern portions of the MAR are typically dominated by red maple, silver maple, black gum, willow oak, pin oak, green ash, or sweetgum. Bald cypress may be the dominant tree in parts of southeastern Virginia and eastern Maryland (Tiner, 1987). Along the Atlantic Coast, evergreen forested wetlands are dominated by Atlantic white cedar or, further south, by broad-leaved bays. Though often referred to as "swamps," the term "forested bog" is sometimes applied to certain forested wetlands with dense ground cover of mosses of the genus *Sphagnum*. They serve as important waterfowl breeding areas and provide habitat for a wide variety of upland and aquatic species.

2. Scrub/shrub wetlands. Scrub/shrub wetlands are dominated by small trees or shrubs (evergreen or deciduous) less than six meters high. They may be found as isolated wetlands in upland areas where the water table is near the ground surface, or adjacent to rivers, lakes, estuaries, and ocean shores.

In coastal areas within the MAR, scrub/shrub wetlands are often dominated by high-tide bush and groundsel tree. Buttonbush, swamp rose, alders, or willows are more common inland. In the northern or mountainous regions within the MAR, scrub/shrub wetlands may be referred to as "bogs" and contain leatherleaf and meadowsweet (Tiner, 1987).

3. Emergent wetlands. Emergent wetlands are dominated by species of rooted herbaceous plants that may be temporarily or permanently flooded at their bases, but that emerge above the water line for most or all of the growing season. These wetlands are found throughout the region, particularly in coastal areas and adjacent to lakes and streams. But, they are also found in more isolated depressions or in less defined drainages such as mountain meadows.

Estuarine emergent wetlands (coastal marshes) are common along the MAR's Atlantic Coast, especially associated with Chesapeake Bay, Delaware Bay, and their tributaries. They are generally dominated by salt tolerant grasses including smooth cordgrass, salt haygrass, and switchgrass. Inland emergent wetlands may be dominated by broad-leaved cattail, bluejoint grass, reed canary grass, wool grass, or various species of smartweed, sedges, asters, and

goldenrod (Tiner, 1987). Some seasonally inundated emergent wetlands may be referred to as wet "meadows."

4. Aquatic beds. Aquatic beds are wetlands and deeper water habitats dominated by submerged rooted plants, floating plants, and floating-leaved plants. Examples of typical dominant vegetation include water lily, pondweed, and lotus. They may be found in a variety of sheltered areas of little water movement with water depth of about 3.3 - 6.6 feet (1 - 2 meters), including ponds, margins of larger lakes and streams, and, in some instances, coastal and estuarine waters.

5. Rocky shores. Rocky shores are found along the borders of higher energy streams or shorelines where bedrock surfaces or rock fragments lie exposed to continuous erosion by waves, currents, or flood flows. Algae, mosses, and lichens may be present in these sensitive environments that serve as important habitat for many invertebrate species.

6. Unconsolidated shores. Unconsolidated shores are formed by erosion and deposition by waves and currents, and include beaches, bars, and flats. Often they are only exposed at low water. These landforms dominate much of the Atlantic coastline and are common along the margins of larger rivers and lakes. Beaches and bars are usually sparsely vegetated, although barrier islands, a type of bar, may be substantially vegetated in higher areas. They are habitat for a variety of burrowing invertebrates (mollusks, crustaceans, echinoderms), algae and polychaetes.

Flats are nearly level, alternately flooded and exposed areas of unconsolidated materials such as silt, mud, sand, or peat. Estuarine or marine flats may be regularly or occasionally flooded, and are often habitat for tube-dwelling or burrowing invertebrates such as worms or clams. Riverine flats are found in lower gradient portions of rivers. Like estuarine and marine flats, they are important habitat for invertebrates and for the fish, waterfowl, and shorebirds that feed upon them.

7. Unconsolidated bottoms. Unconsolidated bottoms are low-energy submerged areas that lack large, stable surfaces for plant and animal attachment. Examples include some shallow ponds and slow-flowing river bottoms. Most animals that live in these areas live within the substrate. Typical substrates include sand, gravel, mud, and organic matter.

8. Streambeds. Streambeds may consist of a variety of substrates including bedrock, gravel, sand, mud, and organic matter. Substrate, vegetation and animal life vary widely according to the energy of the stream, whether the stream is perennial or intermittent, and other factors.

9. Rock bottoms. Rock bottoms include permanently (or near-permanently) submerged wetlands with bedrock or rubble substrates, such as along some higher-energy streams and some sub-tidal zones. Their stability allows a varied assemblage of animal and plant life to develop.

C. Wetland Functions and Values

As the plight of wetlands has grown more apparent and the need to preserve them has reached a critical point, functions and values of wetlands have been the focus of increasing identification and research. Sather and Smith (1984) provide a comprehensive summary of major wetland functions and values organized into the five categories outlined below. (The degree to which particular wetlands possess these functions and values varies widely, and some may not be present in a wetland at all.)

1. Hydrology. Wetlands serve flood control functions by virtue of their water storage capacity and their "roughness" (friction by vegetation and other features that slows the flow of water). They can slow flood waters, reduce flood peaks downstream, and increase the duration of streamflows. One study in Massachusetts found that loss of 40% of the Charles River Basin wetlands would increase annual flood damages by over $3 million (Thibodeau and Ostro, 1981 as quoted in Tiner, 1984). Wetlands also dissipate erosive forces such as wave action, currents, and storm tides, thus stabilizing shorelines and lessening damage to upland areas.

Wetlands serve as both groundwater recharge and discharge areas. Research has shown that they tend more often to be groundwater discharge areas because of their typically low elevations relative to water tables. However, in areas where wetlands do recharge aquifers, the filtering function described below is likely to benefit water supplies.

2. Water Quality. Wetlands maintain water quality by serving as filters that remove sediment and pollutants from moving waters. Fertilizers and toxic substances such as pesticides and heavy metals are among the pollutants that are either trapped or rendered harmless to varying degrees by wetland physical or biological processes. Where wetlands recharge aquifers, the filtering function enhances groundwater quality.

3. Food Chain/Nutrient Cycling Processes. Wetlands generally support high levels of primary production (plant material) compared to upland ecosystems. Grazing and decomposition processes in wetlands convert this plant tissue into forms of nutrients and detritus that are usable as food by many higher organisms in food webs. Nutrients and detritus may also be flushed from wetlands into rivers and estuaries, enhancing productivity in those systems.

4. Habitat. Wetlands provide important habitat for numerous plant and animal species. Animal species at all trophic levels use wetlands for cover, spawning and nesting grounds, sources of food and water, and other requirements in all or part of their life cycles. Wetlands also provide habitat for many threatened or endangered species. Over half of the areas identified as critical habitat under provisions of the Endangered Species Act include wetlands.

5. Socio-economic. "Non-consumptive use" values of wetlands are often difficult to quantify. They include scenic, recreational, educational, aesthetic, archeological, and historical values that generally enhance "quality of life" for many people. "Consumptive use" values, such as benefits to commercial and sport fishing and benefits to hunting (especially migratory waterfowl) are

easier to quantify. Meyer (1986) notes that 98% of Maine's $50 million/year fish harvest consists of species that depend upon wetlands for some part of their life cycles.

III. WETLAND PROTECTION LAWS AND POLICY

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A. Primary Federal Wetlands Protection

1. The National Environmental Policy Act of 1969 (NEPA). The National Environmental Policy Act of 1969, as amended, [42 USC 4332 (1982)] in many ways cleared the way for subsequent federal laws and executive orders protecting the nation's wetlands. In recognition of "...the profound impact of man's activity on ... the natural environment," the Act declares a national policy to "...create and maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic, and other requirements of future generations." NEPA further directs that all practicable means should be used to improve federal functions so that the nation may "...attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences...."

Provisions were included in NEPA to implement these goals. Most significantly, section 102(C) of the Act directs that, for all proposals of legislation and other major federal actions affecting the quality of the human environment, a detailed environmental statement must be prepared by the responsible official. This statement **("Environmental Assessment" or the more detailed "Environmental Impact Statement")** considers alternatives to the proposed action, environmental impacts of these alternatives, and so on. All proposed NPS actions, including those affecting wetlands and other aquatic habitats, must comply with the Act via procedures outlined in the Service's NEPA Guideline (NPS-12). Procedures for integrating requirements of E.O. 11990 and Section 404 of the Clean Water Act into the NEPA compliance process are discussed in subsequent chapters of this manual.

2. The Clean Water Act of 1972. The Clean Water Act [33 USC 1251-1376 (1982)] established **limited** federal regulation of the nation's wetlands. Section 404 of the Act provides direct wetlands protection by authorizing the COE to prohibit or regulate, through a permit process, discharge of dredged or fill material into the waters of the United States, **including wetlands** (see chapter VI).

The Clean Water Act also provides indirect wetlands protection through a suite of nationwide water quality protection provisos designed to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." States are required to set and enforce water quality standards that meet U.S. Environmental Protection Agency (EPA) minimum guidelines. The law requires that effluent limitations be established for point sources of pollution (e.g. industry, water treatment facilities) and a cost-sharing program was established to help rural landowners control non-point pollution. Section 401 of the Act requires states to certify that a proposed discharge will comply with applicable state water quality standards, effluent limitations, and treatment requirements. Section 402 of the Act established the National Pollution Discharge Elimination System (NPDES), a program requiring permits for point source effluent discharges. Also, the law requires secondary (physical and biological) treatment or better for public wastewater treatment facilities.

3. Executive Order 11990 - "Protection of Wetlands". Recognition of the importance and plight of wetlands was conveyed to all levels of the federal government on May 24, 1977, when President Jimmy Carter issued E.O. 11990, "Protection of Wetlands" [42 USC 4321 (1982)]. In furtherance of the National Environmental Policy Act, E.O. 11990 ordered federal agencies to "...avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands **wherever there is a practicable alternative....**" The document established a mandate for the NPS and other federal agencies to "... preserve and enhance the natural and beneficial values..." of wetlands and to minimize impacts to them when no practicable alternative to the proposed action exists. Specific provisions of the Executive Order and the current NPS guidelines for its implementation are summarized in chapter V of this manual.

4. Executive Order 11988 - "Floodplain Management". This Executive Order directs federal agencies to avoid adverse impacts upon floodplains and their occupants where there is a practicable alternative. The NPS is directed to take action to reduce the risk of flood loss, to minimize impacts of flooding on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains. Since many wetlands are located within floodplains, compliance with the Order provides a degree of protection for wetlands as well. Because of this relationship, the NPS guidelines for compliance with both E.O. 11988 and E.O. 11990 are published jointly in 45 FR 35916 (minor revisions in 47 FR 36718) as discussed in chapter V of this manual.

B. Related Federal Laws

Federal actions affecting wetlands may require compliance with various other laws summarized below.

1. The Rivers and Harbors Appropriation Act of 1899. The Rivers and Harbors Appropriation Act [33 USC 401-403 (1982)] established comprehensive COE regulatory authority over U.S. navigable waters. The Act sets permit requirements for construction of bridges, causeways, dams, dikes, and similar facilities within or over navigable waters of the U.S. Exemptions are provided for waters that are not tidal and are not used (or are not susceptible to use with reasonable improvement) for transport of interstate or foreign commerce.

Section 10 of the Act requires a COE permit for construction of any "obstruction of navigable waters" of the U.S. (e.g., piers, wharfs, breakwaters, and jetties outside of established harbor lines) and for any excavation, fill, or other modification to various types of navigable waters. **If the proposed project involves discharge of dredged or fill material into waters of the U.S., including wetlands, a Clean Water Act Section 404 permit (see III(A)(2) above) may also be required.**

2. The Endangered Species Act. The Act [16 USC 1531 *et seq.* (1982)] requires that federal agencies intending to fund, authorize, or carry out an activity take action necessary to insure that continued existence of threatened or endangered species will not be jeopardized or that designated critical habitat will not be destroyed or altered. Section 7 of the Act requires consultation

with the FWS if endangered or threatened species or their habitats will be affected.

3. The Coastal Zone Management Act of 1972. Section 307 of the Act, as amended [16 USC 1451-1464 (1982)], requires federal agencies conducting activities directly affecting a state's coastal zone to comply, **to the maximum extent practicable**, with an approved state coastal zone management program.

4. The Fish and Wildlife Coordination Act. The Act [16 USC 661-666c (1982)] requires federal agencies that propose to control or modify any body of water (or issue permits or licenses to do so) to first consult with the FWS or the National Marine Fisheries Service (as appropriate) and with the head of the appropriate state agency regulating the fish and wildlife resources of the affected state before proceeding. Certain NPS actions may be exempt from these requirements under 16 USC 662(h). However, actions where other public or private parties are involved, such as along park borders or in rights-of-way issues, may require full compliance with the Act.

5. The Wild and Scenic Rivers Act. The Act [16 USC 1278 et seq. (1982)] provides that no federal agency can participate in construction of any water resources project that would adversely affect a river (and its associated protected habitat) designated under the Act.

6. The Wilderness Act of 1964. NPS wetland areas that are part of the National Wilderness Preservation System established by this Act [16 USC 1131 et seq. (1982)] receive special protection from certain kinds of development and use.

7. The Coastal Barrier Resources Act of 1982. The Act [16 USC 3501 et seq. (1982)] established a "Coastal Barrier Resources System" that identifies and maps certain essentially undeveloped coastal barrier features (islands, spits, and so on) and their associated aquatic habitats along the Atlantic and Gulf Coasts. The Act restricts certain federal actions, e.g. construction of bridges, roads, docks, shoreline stabilization projects, and federal assistance for such actions in areas within the System. While such features managed by the NPS are not included in the System, listed areas may be adjacent to NPS units.

8. The Food Security Act of 1985. The Act, commonly known by the unfortunate name "Swampbuster," restricts a number of federal benefits to farmers who, after December 23, 1985, produce agricultural commodities on certain "converted wetlands." Knowledge of the provisions of this law would be useful for management of agricultural "special use permits" and in protecting park aquatic resources from impacts associated with agriculture on inholdings and adjacent lands.

9. The Marine Protection, Research, and Sanctuaries Act of 1972. The Act, as amended [16 USC 1431-1434 (1982)], requires certification by the Secretary of Commerce before any activity within a designated marine sanctuary can be carried out. The Act also covers open water disposal of dredged material.

IV. OVERVIEW OF NPS WETLAND REGULATORY COMPLIANCE

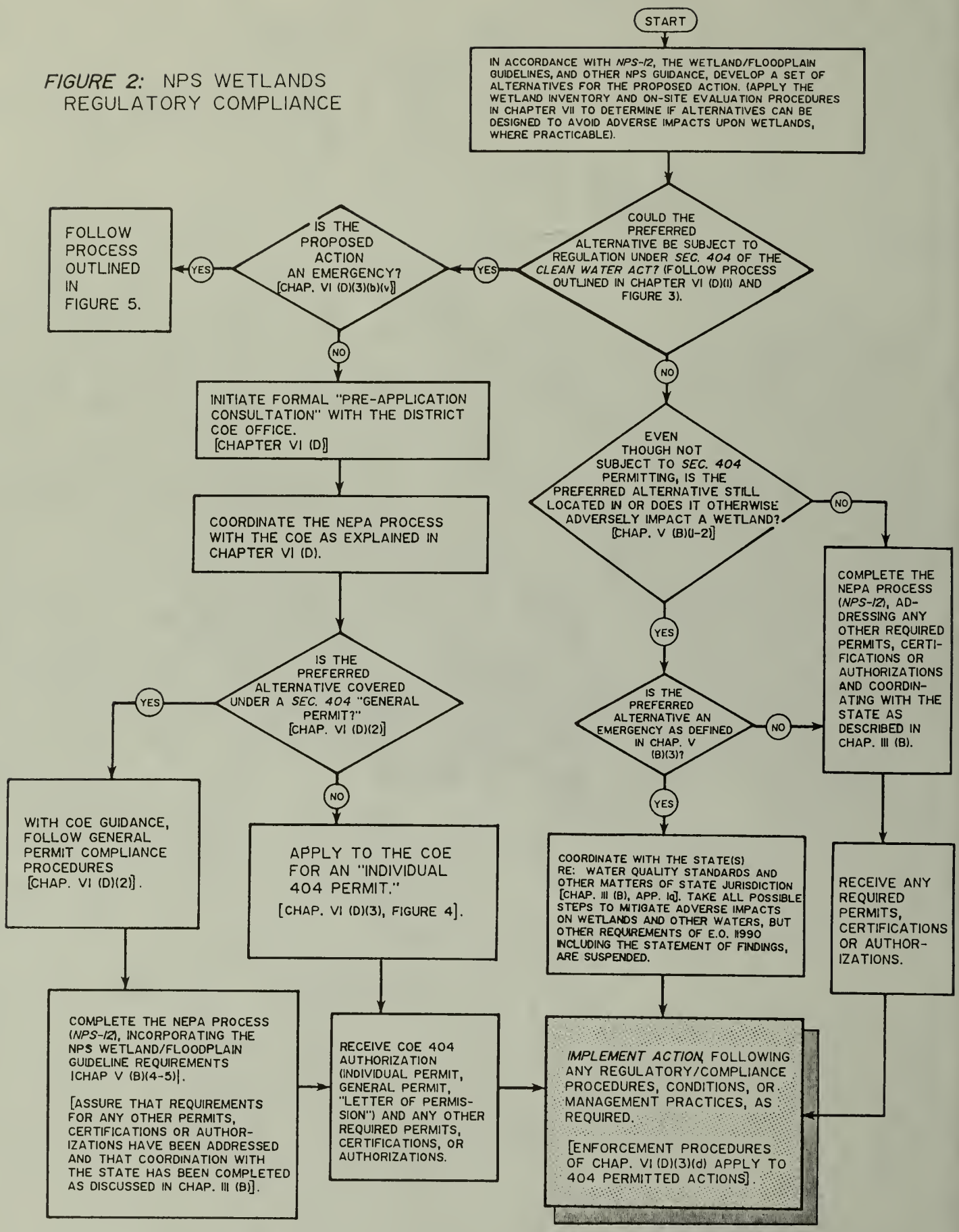
IV. OVERVIEW OF NPS WETLAND REGULATORY COMPLIANCE

The NPS wetland regulatory compliance process is summarized in Figure 2. This diagram provides a sequence of steps that should be followed to integrate compliance with Executive Order 11990 and Section 404 of the Clean Water Act into the NPS planning process, and to assure consistency with state/local regulations pertaining to wetlands and other aquatic areas. Provisions for compliance in **emergency situations** are also included. Most steps in the diagram refer to sections of this manual that provide more detailed explanations of procedures.

Figure 2 should be reviewed at this point to get an overall familiarity with the relationships between these regulatory processes. The diagram is organized as follows. First, in accordance with the NPS NEPA Guideline (NPS-12), a set of alternatives for an action must be clearly identified, avoiding location in or adverse impacts upon wetlands or other "waters of the United States," where practicable. The wetland inventory required by the NPS Floodplain Management and Wetland Protection Guidelines (chapter V(B)(7) of this manual) is an important planning tool for this purpose, but this must be followed up by an on-site evaluation to verify that impacts upon these areas are, in fact, avoided. Chapter VII sections (A) and (B) of this manual provide guidance for carrying out the inventory, and chapter VII(C) discusses procedures for the on-site wetland evaluations.

The next step is to determine whether or not the proposed action is regulated under Section 404 of the Clean Water Act. At this point the diagram splits into two pathways, since whether or not an action is regulated under Section 404 affects subsequent emergency procedures, application of the NEPA process (including E.O. 11990 provisions), and other compliance procedures. Steps along these two pathways refer the reader to chapters V and VI of this manual, which explain requirements of the Floodplain Management and Wetland Protection Guidelines and Section 404 of the Clean Water Act, respectively. Although only portions of these chapters are referenced in the diagrams, they should be read in their entirety at this time for a full understanding of the regulatory requirements.

FIGURE 2: NPS WETLANDS REGULATORY COMPLIANCE



VI. THE EXECUTIVE ORDER FOR PROTECTION OF WETLANDS (E.O. 11990): PROVISIONS AND PROCEDURES FOR COMPLIANCE

V. THE EXECUTIVE ORDER FOR PROTECTION OF WETLANDS (E.O. 11990): PROVISIONS AND PROCEDURES FOR COMPLIANCE

A. Provisions of the Executive Order

In furtherance of NEPA and in the interest of avoiding adverse impacts upon wetlands where there is a practicable alternative, the Executive Order directs that in carrying out their responsibilities **on federal lands**, federal agencies must provide leadership in the protection of wetlands and must minimize the destruction, loss, or degradation of wetlands and preserve and enhance their natural and beneficial values. The Order further requires that:

-- Before undertaking new construction (e.g. draining, dredging, channelizing, impounding) in wetland areas, **the NPS must show that no practicable alternative to the construction or other activity exists** and that the proposed action includes all economically and environmentally practicable measures to **minimize harm to wetlands** resulting from the proposed action.

-- The NPS must provide opportunity for **early public review** of any plans or proposals for new construction in wetlands.

-- Requests for new authorizations/appropriations transmitted to the Office of Management and Budget must indicate if the action is in a wetland and how the action is in compliance with this Order.

-- When NPS wetlands are proposed for lease, easement, right-of-way or disposal to non-federal parties, the conveyance document must indicate those uses that are restricted under federal, state, or local wetlands regulations and other appropriate restrictions to the recipient (and any successor).

Factors to be considered when determining the action's effect on wetlands include:

-- Public health, safety, and welfare (including water supply, water quality, aquifer recharge and discharge characteristics, flood and storm hazards, sediment, and erosion),

-- Maintenance of natural systems (including conservation and long term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, and fish, fiber, food, wildlife, and timber resources), and

-- Other uses of wetlands in the public interest such as recreational, scientific, and cultural uses.

B. National Park Service Guidelines for Compliance with Executive Order 11990

NPS guidance for compliance with E.O. 11990 is published jointly with guidance for E.O. 11988 (Floodplain Management) as the "NPS Floodplain Management and Wetland Protection Guidelines" (45 FR 35916, minor revisions in 47 FR 36718), **hereafter referred to as the Wetland/Floodplain Guidelines.** The wetland compliance portions of these guidelines are **summarized** in this section to familiarize the reader with their provisions. However, **full compliance is assured only by referring to the actual document (Appendix 2 of this manual), which outlines procedures and responsibilities in detail.** Figure 2 of this manual shows how compliance with the NPS Wetland/Floodplain Guidelines fits into the overall wetlands regulatory process once an action is proposed, while chapter VII provides supplemental information for implementing the Wetland/Floodplain Guideline requirements.

The Wetland/Floodplain Guideline procedures apply to all NPS actions with the potential for adversely impacting wetlands or their occupants, or to actions which themselves are subject to harm by locating in these areas (see exemptions in following sections). The adverse impacts may result from actions in wetlands, from actions outside wetland borders but still having adverse impacts upon them, or from actions which directly or indirectly support wetland development.

Sections 1-4 below summarize the process used to determine if a specific action is subject to the provisions of the Order. If the action does require compliance with the Order, section 5 below summarizes the special instructions for incorporating its provisions into the NEPA process. The remaining sections of this chapter summarize contents of the E.O. 11990 "Statement of Findings" and discuss relationships between the Wetland/Floodplain Guidelines and the NPS water resources planning process.

Note: References cited in each sub-heading below refer to the NPS Wetland/Floodplain Guidelines (Appendix 2 of this manual).

1. Is the proposed action in a wetland? (Sec. 6(D)(1b)

Chapter VII(B) of this manual provides wetland inventory information for use in making an initial determination of wetland locations. **The on-site evaluation procedures discussed in chapter VII(C) must be performed to verify this determination in the field.**

2. Could the proposed action otherwise impact or support development in wetlands? (Sec. 6(D)(1c)

If the action is not located in a wetland, then the proposed action may still adversely affect a wetland. This is the case if:

-- The action supports, encourages, allows, serves, or otherwise facilitates wetland development,

-- The action reinforces existing land uses that have developed without consideration of minimizing impacts to or otherwise preserving, enhancing or restoring wetlands, or

-- The action has secondary or dispersal effects that can reach into wetlands and cause changes to any of their functions, values, or other characteristics.

The NPS Water Resources Division is available for consultation in making these determinations.

3. Exemption for emergencies (Sec. 5(B)(4))

The Wetland/Floodplain Guidelines recognize that emergency situations can occur where immediate protection of property and public health and safety are paramount. Under these circumstances, modified procedures are in effect, **but only for those actions necessary to end the immediate emergency.** Taking into consideration the need for rapid action in such emergencies, a plan should be developed to resolve the emergency situation, with all possible steps taken to mitigate potential adverse impacts of the action upon wetlands. **Any proposed remedial action beyond that necessary to resolve the immediate emergency condition must comply with the normal wetland compliance procedures outlined in this manual.**

Where such emergency actions could impact waters protected by state water quality standards or other matters of state or federal jurisdiction, efforts must be made to coordinate with the appropriate agencies to assure compliance. (Emergency procedures for actions subject to Clean Water Act Section 404 permitting are discussed in chapter VI of this document.)

4. Other cases where proposed actions may be partially or wholly exempt from E.O. 11990 procedures (Sec. 5(A and B))

-- The Order applies only to those actions proposed after May 28, 1980 or actions undergoing planning or implementation after May 24, 1977.

-- If an action is normally categorically excluded from NEPA compliance requirements (Appendix 1 of 516 DM 2, and Appendix 7 of 516 DM 6) and the NPS determines that the action has no potential for adverse effects upon wetlands, then these procedures **do not apply.** (Responsibilities for such determinations are outlined in Section 9 of the Wetland/Floodplain Guidelines.) If it is found that there is such potential for adverse effects even though the action is normally a NEPA categorical exclusion, an Environmental Assessment (EA) and an E.O. 11990 "Statement of Findings" (see 5(a) and 6 below) must be prepared.

-- For actions affecting wetlands that are not in a floodplain or with no potential to adversely impact a floodplain, the actions are exempt from the procedures if:

* The NPS project was under construction before May 24, 1977, or

* The NPS has a draft or final Environmental Impact Statement (EIS) filed before October 1, 1977 which adequately analyzes the action. (Not exempt if the EIS only generally covers the proposed action, is devoted largely to related activities, or the wetland implications of the action are not specifically and adequately analyzed.)

-- Additional actions which **may** be excepted from compliance (see Wetland/Floodplain Guidelines sec. 5(B)(3)) are:

* Scenic overlooks and foot trails

* Picnic and camping facilities including appropriate sanitary facilities needed to provide full utilization of recreational developments, providing that floodproofing is a consideration in their design and construction.

5. <u>Modifications of the NEPA process for proposed actions located in or otherwise adversely impacting wetlands</u>

All NPS proposed actions must comply with NPS guidance for the NEPA process (NPS-12). The NPS Wetland/Floodplain Guidelines include supplemental NEPA compliance instructions that apply to proposed actions located in or otherwise impacting wetlands, as summarized below.

a. The NEPA "public review" process (Sec. 6(D)(2))

Conforming with the NPS-12 requirements for public review, with the following specifications, will assure required public participation in decisions covering actions affecting wetlands:

-- **If no EIS is anticipated for a project then scoping for the EA is required**, with full public participation in development of alternatives, identification of environmental impacts, and review and choice of alternatives.

-- **Public notice of the availability of the EA for review is required.**

-- EA's which reveal adverse impacts upon wetlands will have a public review period of not less than 60 days before issuance of a "Finding of No Significant Impact" (FONSI) or a Notice of Intent (NOI) to prepare an EIS.

-- NEPA documents covering proposed actions impacting wetlands are to be circulated to the EPA, the FWS, the U.S. Geological Survey (USGS), the COE, and other agencies listed in Section 6(D)(2)(e) of the Wetland/Floodplain Guidelines.

-- Following public and agency review of the EA, the NPS Regional Director evaluates the proposed action and issues a decision document and FONSI or NOI. **If the action is in or otherwise adversely impacts a wetland and a FONSI is issued, a "Statement of Findings" (SOF) showing compliance with the E.O. 11990 must be included as a separately identifiable document, not to exceed 3 pages.** (See section 6 below for required content and the case

study in Appendix 5 of this manual for a sample SOF.) Public notice is published in accordance with 40 CFR 1506.6 and is sent to the previously identified agencies. A 15-30 day comment period is required before the action is implemented.

-- If an EIS is prepared, then special public review and participation procedures focus on the draft EIS (DEIS). **This document contains full disclosure of wetland areas affected by the proposal and its alternatives, emphasizing any hazards and any loss of natural wetland values.**

-- The DEIS is made available for public and agency review for a minimum of 60 days from the date of filing with the U.S. EPA. A Federal Register notice of availability and the document cover sheet must indicate that the DEIS serves as an instrument of compliance with the Executive Order.

-- If the final EIS (FEIS) proposes an action that adversely impacts wetlands, the "Statement of Findings" required by the Order is attached as a separately identifiable document explaining the rationale for determining that there is no practicable alternative to locating in or impacting wetlands.

b. Identifying and evaluating "practicable alternatives" to locating in wetlands (Sec. 6(D)(3))

EA or DEIS alternatives must include the "no action" alternative and any "practicable alternatives" that would be outside of or would otherwise avoid impacts upon wetlands. Factors to be considered in developing practicable alternatives include the natural environment, existing technology, cost, social concerns, and legal constraints.

c. Identification of impacts (Sec. 6(D)(4))

The NEPA documents for the proposed action must include the full range of potential direct or indirect adverse impacts upon wetlands, including the following:

-- Flood hazards and factors related to natural values are to be analyzed for the proposed action, including information on the factors listed in Section 6(D)(4) of the Wetland/Floodplain Guidelines.

-- Factors relevant to the proposed action's effects on the survival, quality, values and functions of wetlands are to be analyzed, including factors listed in Section 6(D)(4) of the Wetland/Floodplain Guidelines.

-- In cases where the proposed action involves an already existing facility or program, the EA or DEIS must address effects resulting from continued use or modification of the existing facility or program that preclude the opportunity to restore the former wetland values and functions.

d. Directive to minimize adverse impacts upon wetlands and to restore, preserve, and enhance wetland functions and values (Sec. 6(D)(5))

Throughout the process of preparing and evaluating the proposed action and alternatives, the directive to minimize impacts on wetlands, restore impacted wetlands to their former natural functions, preserve wetlands, and enhance their values via their use for educational, recreational, scientific, and similar purposes that are not disruptive to natural ecological conditions, must be followed. Methods to consider for minimizing impacts include reductions in project size or scope, design changes, utilization of "best available pollution control technologies" (contact the EPA or the state agency listed in Appendix 1a), changes in construction practices, use of "best management practices" described in a state's approved Clean Water Act Section 319 non-point pollution control plans or other documentation, and changes in maintenance and operations procedures. Restoration plans should focus on reestablishing an environment in which the natural functions of the ecological system are restored, including removal of structures, where practicable.

6. Content of the E.O. 11990 "Statement of Findings" (Sec. 6(D)(3c and 6)

The Statement of Findings must include:

-- A description of why the proposed action must be located in or otherwise must adversely impact wetlands.

-- A description of all significant facts considered in making the above determination, including alternative sites and actions.

-- Documentation of coordination and consistency with state and local wetlands regulations.

-- A description of how the activity will be designed or modified to minimize harm to wetlands.

-- A statement regarding how the action affects wetland functions and values.

-- A map showing the location of the wetland sites affected.

-- Signature of the Regional Director recommending approval of the statement and approval of the associated environmental document.

A sample SOF is included in the case study presented in Appendix 5 of this manual.

7. Relationship between E.O. 11990 and National Park Service water resources planning requirements

The National Park Service's "Planning Process Guideline" (NPS-2) includes guidance for water resources planning in preparation of General Management Plans, Natural Resource Management Plans and various other "Action Plans." In addition to the supplemental NEPA compliance procedures discussed above, the NPS Wetland/Floodplain Guidelines outline procedures for incorporating E.O. 11990

provisions into the NPS water resources planning process. These requirements are summarized below, with references to appropriate Sections of the Wetland/Floodplain Guidelines provided:

-- **NPS units are required to inventory wetlands subject to or potentially subject to public use and/or development for areas where the magnitude of hazard and impact of human activities is likely to be greatest** (Sec. 6(B)). The inventory must be conducted prior to or during the preparation of the unit's General Management Plan (GMP) or subsequent "Action Plans" to facilitate compliance with the Order. Recommended inventory procedures are found in chapter VII(B) of this manual.

-- **GMPs for NPS units must include an inventory of existing structures, facilities and programs involving the use of wetlands and must document decisions on their retention, removal, or modification** (Sec. 8). The Regional Safety Manager evaluates all such facilities to assure compliance with safety standards. The Regional Director may then require closure of facilities not in compliance and may also require modification to protect against loss.

-- **Where wetland values within NPS units have been harmed by man's previous actions, Natural Resource Management Plans must include actions to restore an environment in which the ecological systems can function in a natural manner** (Sec. 6(D)(5)(b)).

-- **When an action is proposed in a wetland which has been degraded by past actions, restoration actions must be included as part of the proposal. Where practicable, wetlands must be further restored by removing structures and facilities that are not in compliance with the Wetland/Floodplain Guidelines** (Sec. 6(D)(5)(b)).

-- **Natural Resource Management Plans and/or Water Resource Management Plans must specify requirements for monitoring programs and other actions necessary to ensure protection and enhancement of wetland values to the greatest extent feasible** (Sec. 8).

8. Cultural resources procedures (Sec. 7(A))

NPS cultural resources guidance is found in NPS-28. With regard to E.O. 11990, cultural resources located in wetlands are to be managed to ensure their preservation, including proper floodproofing designed so as not to adversely affect the historic or cultural integrity of the resource.

VI. NPS COMPLIANCE WITH SECTION 404 OF THE CLEAN WATER ACT

VI. NPS COMPLIANCE WITH SECTION 404 OF THE CLEAN WATER ACT

A. Overview of the Section 404 Regulatory Program

Section 404 of the Clean Water Act authorizes the COE to regulate, via a permit program, the discharge of dredged or fill material into the "navigable waters of the U.S." at specified disposal sites. A key element of the Act is its broad definition of "navigable waters" as "waters of the United States, including the territorial seas." **This brought a variety of waters, including wetlands, under COE regulatory jurisdiction.**

Typical examples of regulated activities are filling to create development sites of various kinds, most channel construction and maintenance, port development, and water resource projects such as dams and levees. Under some circumstances an action involving discharge of dredged or fill material may fall under the jurisdiction of both the Rivers and Harbors Act (chapter III(A)(5)(a) of this manual) **and** the Clean Water Act. An example might be construction of a marina on a navigable river bordered by wetlands. Since the COE administers both programs, these permits are usually handled jointly through the application procedures described in section D of this chapter.

Section 404(b)(1) of the Act required the EPA to issue guidelines for implementing the permit program. These guidelines, published in 40 CFR 230 (Appendix 3 of this manual) and summarized in section C below, specify the tools to be used by the COE in evaluating the potential effects of proposed discharges. The COE has incorporated these guidelines into its regulations for implementation of the 404 program published in 33 CFR 320-330 (Appendix 4 of this manual). **The basic policy underlying the 404(b)(1) Guidelines is that dredged or fill material should not be discharged into aquatic ecosystems unless it can be demonstrated that there will not be an unacceptable adverse environmental impact, either individually or in combination with other discharges.**

The EPA has review authority over all 404 permit applications and, under Section 404(c), may veto or restrict permits which may have "...unacceptable adverse effect on municipal water supplies, shellfish beds, fisheries, wildlife, or recreation areas." Any such discharge without a permit from the COE is in violation of the Act and is subject to both the COE's and EPA's administrative, civil, and criminal enforcement powers under the Clean Water Act. The FWS and the National Marine Fisheries Service (NMFS) also play roles in the permit process by providing consultation on habitat evaluation, mitigation procedures, identification of adverse impacts and other related issues.

An Interagency Agreement authorized by Section 404(q) of the Clean Water Act established procedures for resolving disputes between the federal agencies with roles in the permit decision process. The procedures first seek resolution informally, but also provide for "elevation" to higher agency levels for resolution. (The NPS can request that the FWS "elevate" a permit decision on its behalf, or can resolve differences directly through procedures established in the Departmental Manual [503 DM 1]). Except for a few special cases, the COE has final say in such "elevations." However, EPA may still exercise its

ultimate authority over a permit by restricting or prohibiting the activity under Section 404(c).

The COE is authorized to issue "General Permits" on a statewide, regional, or national basis for categories of activities involving discharge of dredged or fill material into waters of the U.S. that are determined to have minimal adverse impacts, including cumulative impacts. These too must comply with the 404 (b)(1) Guidelines. Such permits are normally in effect for five years, but they may be revoked before their expiration dates after public notice and a public hearing. If a proposed action is authorized under a General Permit then the longer "Individual Permit" process is not necessary.

States may assume responsibility for administration of the federal 404 permit program as provided for in 33 USC 1344. Thus far, Michigan is the only state approved to do so. Apart from the 404 permit program, a state (or interstate agency) may regulate discharge of dredged or fill material into state waters through its own laws, but the Secretary of the Army has overriding authority to maintain navigation.

Section 404 is quite limited as an overall wetlands protection device. Even substantial activities in wetlands such as dredging or land clearing may not be treated as regulated discharges under Section 404 if they only involve relatively small "incidental" discharges of soil or sediment into regulated wetlands or other waters. It is mainly the discharge of the intended dredged or cleared material itself that is regulated. Likewise, **activities external to wetlands but which may still have devastating effects, such as drainage for urban or agricultural development or groundwater pumping for water supply, are often conducted without discharging dredged or fill material into the waters of the U.S., and thus are not regulated under Section 404.**

Even if proposed actions within NPS units are not regulated under Section 404 of the Clean Water Act, NPS wetlands are still protected through strict compliance with E.O. 11990 and the NPS Wetland/Floodplain Guidelines (see chapter V of this manual). Also, in the interest of comity, every effort should be made to assure that NPS actions are consistent with state or local wetland laws.

B. Section 404 Jurisdiction

In this portion of the manual, **"waters of the United States"** regulated under Section 404 are defined, followed by a list of waters generally considered exempt from these regulations. Finally, some **activities** are listed that may impact regulated waters but are themselves exempt from Section 404 regulation.

1. "Waters" regulated under Section 404

Based upon the regulatory definition of "waters of the United States" found in the 1986 COE 404 permit guidelines (33 CFR 320-330), **NPS managers should assume that discharge of dredged or fill material into virtually any aquatic area in an NPS unit, includi wetlands, is regulated under Section 404 of the Clean**

Water Act. The COE defines these "waters" as follows:

-- All interstate waters, including interstate wetlands.

-- All waters, including wetlands, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters used to irrigate crops sold in interstate commerce.

-- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

* which are or could be used by interstate or foreign travelers for recreational or other purposes,

* from which fish or shellfish are or could be taken and sold in interstate or foreign commerce, or

* which are used or could be used for industrial purposes by industries in interstate commerce.

-- Waters, including wetlands, which are or would be used as habitat by birds protected by Migratory Bird Treaties, by other migratory birds which cross state lines, or by endangered species.

-- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified above.

-- All impoundments of waters otherwise defined as waters of the United States under these definitions.

-- Tributaries of waters identified above.

-- The territorial seas.

2. <u>Waters generally considered NOT subject to 404 jurisdiction</u>

The following waters are generally not considered subject to 404 jurisdiction, although the COE reserves the right on a case-by-case basis to determine that a particular water body within these categories is a "water of the United States":

-- Non-tidal drainage and irrigation ditches excavated on dry land.

-- Artificially irrigated areas which would revert to upland if the irrigation ceased.

-- Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or growing rice.

-- Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.

-- Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill (until the construction operation is abandoned or completed and the resulting water body meets the definition of "waters of the U.S.").

-- Waste treatment systems, including treatment ponds or lagoons designed to meet other requirements of the Clean Water Act.

3. Activities generally exempted from Section 404 regulation

The following list **summarizes** activities which **may** be exempted from Section 404 permitting. For further clarification (e.g., definitions of "normal" plowing or minor drainage, construction or maintenance of "certain facilities," and so on), the reader should consult the COE regulations at 33 CFR 323.4 (Appendix 4 of this manual) or contact the appropriate COE personnel through the offices listed in Appendix 1b. Regardless of any Section 404 exemption listed below, the activities are still subject to provisions of the Clean Water Act and other applicable laws regarding effluent standards, prohibitions regarding toxic wastes and so on.

Exemptions include:

-- Normal farming, silviculture, and ranching activities **(as part of established operations)** such as plowing, seeding, cultivating, minor drainage, harvesting, or upland soil and water conservation practices.

-- Maintenance, including emergency reconstruction of recently damaged parts of currently serviceable structures such as dikes, dams, levees, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures.

-- Construction or maintenance of farm or stock ponds or irrigation ditches, and maintenance (but not construction) of drainage ditches.

-- Construction of temporary sedimentation basins on construction sites which do not involve placement of fill material into "waters of the U.S."

-- Construction or maintenance of farm roads, forest roads, or temporary roads for moving mining equipment, where these roads are constructed and maintained in accordance with appropriate "best management practices" and meet the 15 "baseline provisions" outlined in 33 CFR 323.4(a)(6) to assure that:

* flow and circulation patterns and chemical and biological characteristics of U.S. waters are not impaired,

* reaches of the waters are not reduced, and

* any other adverse effect on the aquatic environments will be minimized.

-- Activities involving existing waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

An agricultural activity is <u>not</u> exempt if its purpose is to convert a "water of the U.S." into a new use where the flow or circulation of the water may be impaired or the reach of the water may be reduced. This applies to bringing formerly unfarmed applicable wetlands into use, conversion of one wetland farming use to another, or where applicable waters have been converted to another use or have lain idle so long that modifications to the hydrologic regime are necessary to resume farming operations.

C. The EPA's 404(b)(1) Guidelines: Criteria for Evaluation of Clean Water Act Section 404 Permit Applications

No 404 permit may be granted unless it is in compliance with the EPA's 404(b)(1) Guidelines (40 CFR 230), reproduced in Appendix 3 of this manual. These guidelines underscore a commitment to protect wetlands and other "special aquatic sites" (areas possessing special ecological characteristics of productivity, habitat, wildlife protection, or other easily disrupted ecological values). The guidelines note that from a national perspective, degradation or destruction of these areas is a severe environmental impact representing an irreversible loss of valuable resources.

Failure to satisfy any of four key Sections (a-d) of 40 CFR 230.10 constitutes non-compliance with the guidelines, and the permit for the project as proposed is denied. Part 230.10(a) of the guidelines prohibits discharge of dredged or fill material into the waters of the U.S. where there is an alternative that still accomplishes the basic purpose of the proposed action but that is less damaging to the aquatic environment. In that regard, a "water dependency test" is specified that presumes that in siting a proposed action there will generally be a "practicable alternative" site available in upland areas or, if water dependent, there may be less vulnerable alternative sites in an aquatic ecosystem. Cost, existing technology, and logistics are the primary factors considered in determining if an alternative is "practicable." Part 230.10(b) prohibits such discharges which would violate state water quality standards, violate toxic or other effluent standards, violate any requirement imposed under Title III of the Marine Protection, Research and Sanctuary Act of 1972, or jeopardize threatened or endangered species or their habitats. Part 230.10(c) prohibits issuance of 404 permits for actions which cause or contribute to significant degradation of the waters of the U.S., including degradation of aquatic ecosystems or impacts upon human health or recreation opportunities. Part 230.10(d) prohibits issuance of permits unless all appropriate and practicable measures have been taken to minimize potential adverse impacts upon the aquatic ecosystem.

Parts 230.11 - 230.61 of the guidelines specify the factual determinations that the COE must make in determining short and long term environmental impacts of the proposed action and discusses the appropriate tests for making such findings. As the permitting agency, the COE is responsible for drawing conclusions from the testing data and other available information and verifying that a proposed action meets the 404(b)(1) criteria. **But, the responsibilities of data collection, required certifications, and so on to make a case for approval of a permit lie with the applicant.**

Part 230.80 provides for the "advanced identification" of areas considered suitable or unsuitable for discharge of dredged or fill material. NPS units may be able to enhance protection of their resources by cooperating with the EPA in identifying wetlands outside park borders that, if degraded, could impact park resources as well.

D. Procedures for Integrating Clean Water Act Section 404 Requirements into the Overall Regulatory Compliance Process

As indicated in Figure 2, the first step in the wetland compliance process is for the NPS to identify a preliminary set of alternatives, including a preferred alternative, for a project in accordance with the NPS Wetland/Floodplain Guidelines (chapter V), the NPS "National Environmental Policy Act Guideline" (NPS-12), and other planning guidance. The next step in the process is determining if, after all practicable alternatives to adversely impacting wetlands have been explored, the preferred alternative may still be regulated under Section 404 of the Clean Water Act (see 1 below). (These steps **may** already have been properly addressed in an existing GMP or "Action Plan.")

Emergency actions that are subject to 404 regulation are handled under a set of abbreviated procedures as indicated in Figure 2 and as detailed in part (3)(b)(v)(i) of this section and in Figure 5.

For non-emergency proposed actions thought to be regulated under Section 404 (left branch of Figure 2), the next step is to incorporate the 404 permit process into the NPS planning process, including NEPA compliance. This is best accomplished through early **"pre-application consultation"** with the appropriate COE District Office. At this step the COE will advise the applicant on the type of 404 permit procedure that would be applicable to the preferred alternative, if a permit is required at all. These procedures include "Individual Permits," "General Permits" or other options discussed in this chapter and incorporated into the step-by-step flow diagrams. During this process the COE may suggest mitigation measures to assure compliance with the 404(b)(1) Guidelines, or may present revised alternatives that alleviate the need for a 404 permit or perhaps avoid impacts upon wetlands entirely. **About 96% of 404 permits are ultimately approved**, largely because of such coordination.

At this point there are often two NEPA compliance processes occurring simultaneously. As the permitting agency, the COE must follow its NEPA guidelines for issuing permits, while the NPS must follow NPS-12, as modified by the Wetland/Floodplain Guidelines where adverse impacts upon wetlands are involved. When NPS actions requiring 404 permits are a relatively small portion

of a larger project, it is probably simplest to consult with the COE as discussed above but proceed with separate NEPA compliance procedures. However, when the permitted action is a substantial portion of the project or where there is considerable controversy over the permitted action, it may be appropriate for the COE to be a co-lead agency or a cooperating agency with the NPS on the required NEPA documents. NPS guidelines for such joint procedures are outlined in NPS-12.

If the proposed action is not regulated by the 404 process (right branch of Figure 2) but still adversely impacts a wetland, then compliance with the NPS Wetland/Floodplain Guidelines, including modifications of the NEPA process, is still required. The park should also assure that the action is consistent with any interstate, state or local wetland laws via the contacts listed in Appendix 1a. If no wetlands are impacted at all, the NEPA compliance process outlined in NPS-12 is, of course, still required.

1. Determining if a 404 permit is necessary for the proposed action

Three sequential "tests" can be applied to determine if a 404 permit is needed for a proposed activity. (The WRD can assist in this determination.) The process is summarized in the step-by-step diagram in Figure 3 and is detailed below. Note that federal courts have consistently upheld Congress's intent to regulate as many activities and waters as is permissible under the Commerce Clause of the Constitution (Ray, 1987). **If there is any doubt about applicability, the proposed action is more than likely regulated and the COE should be consulted. Potentially expensive corrective measures or penalties may result if an action is found to be in violation of Section 404 permit requirements.**

a. Does the activity involve discharge of dredged or fill material?

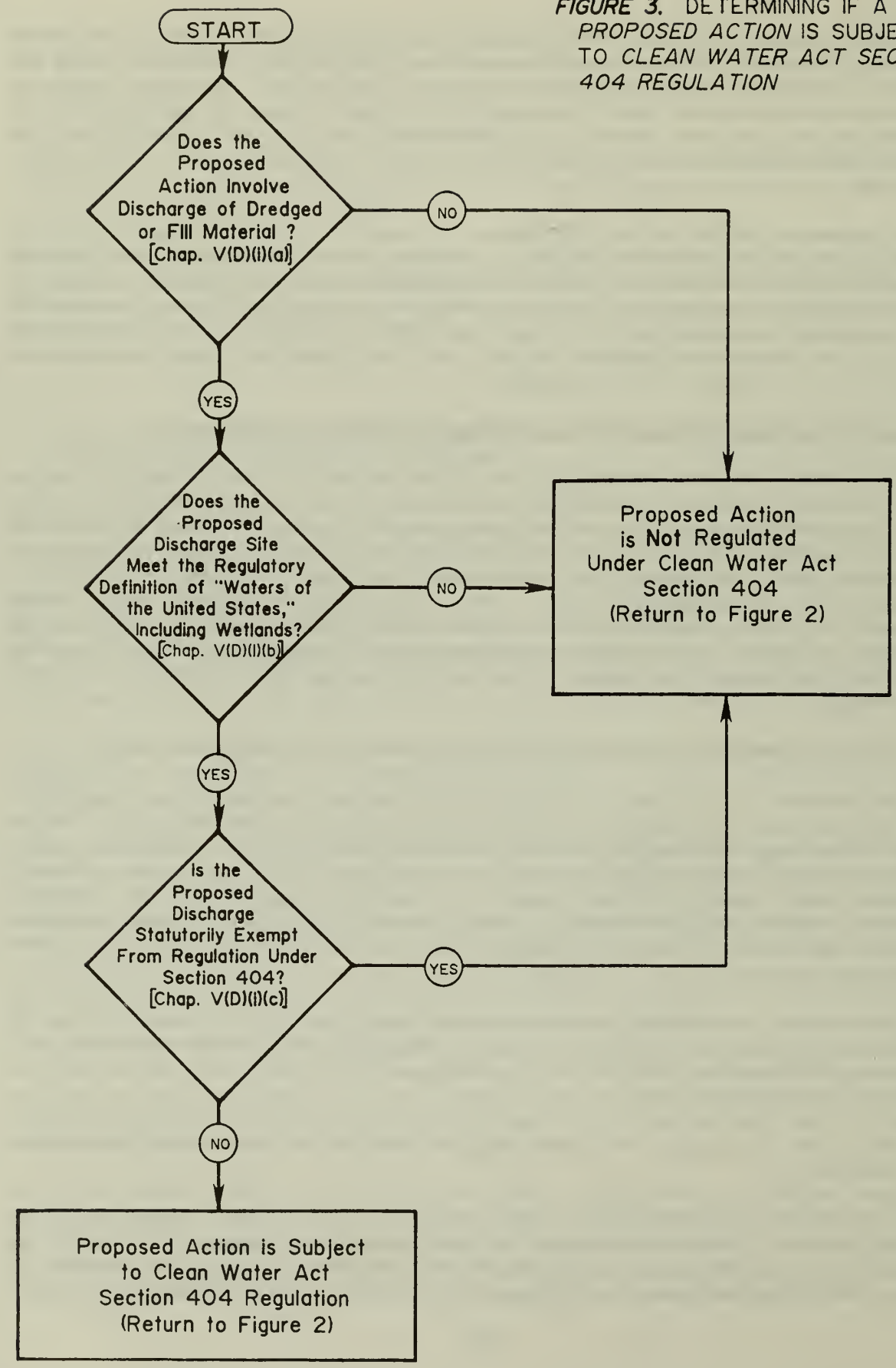
"Dredged material" is defined in the 1986 COE's 404 program regulations (Appendix 4 of this manual) as material dredged or excavated from waters of the United States. "Discharge of dredged material" means any addition of dredged material into the waters of the United States and includes runoff or overflow from a contained land or water disposal area. It does **not** include plowing, seeding, and harvesting for the production of food, fiber, and forest products, nor does it include de minimis (minor) incidental soil movement occurring during normal dredging operations.

"Fill material" is defined as any material used for the primary purpose of replacing an aquatic area with dry land **or changing the bottom elevation of a waterbody.** "Discharge of fill material" means the addition of fill into the waters of the United States.

b. Does the discharge site meet the definition of "waters of the United States"?

Section B(1) of this chapter discusses waters, including wetlands, that meet this definition. **The simple answer for NPS units is to assume that, with the exception of the waters listed in section B(2) of this chapter, virtually all waters, including wetlands, are "waters of the U.S."** This is due largely to

FIGURE 3. DETERMINING IF A *PROPOSED ACTION* IS SUBJECT TO *CLEAN WATER ACT SECTION 404 REGULATION*



use or potential use for recreation purposes by interstate travelers, but other portions of the regulatory definition apply as well. Identification of wetlands and delineation of their borders, however, may be difficult in some cases. Chapter VII of this manual should be consulted for wetland identification, border delineation, and inventory procedures.

c. **Is the proposed discharge statutorily exempt from regulation under Section 404?**

Section B(3) of this chapter summarizes **activities** that are normally exempt from 404 permit requirements. In a number of these cases, however, qualification for the exemption may not be clear. One example would be determination of what constitutes "emergency reconstruction" of certain "recently damaged" structures. Another example would be whether construction of a temporary road for moving certain equipment causes "chemical change" in the affected waters. **Because of these ambiguities, the COE (or appropriate state officials in states with approved 404 programs) should be contacted for consultation before any such proposed activity is begun.**

2. <u>The "General Permit" process</u>

"General Permits" are designed to alleviate delay in Section 404 permitting for proposed actions involving discharge of dredged or fill material that have **minor impacts** on the waters of the United States. These permits may be nationwide, regional, or statewide. The COE 404 permit regulations list the 26 currently existing nationwide General Permits that **may** apply to proposed actions that affect wetlands (33 CFR 330.5 (1986), Appendix 4 of this manual). Regional and statewide permits vary for the different MAR states and tend to change more rapidly than nationwide permits. Therefore, they are not listed here. **During "pre-application consultation," COE staff will advise the applicant whether or not the proposed action is covered under any type of General Permit.**

General Permit compliance procedures will be communicated by the COE District Office at the pre-application consultation. These procedures include requirements for notifying the COE and other agencies that an action covered under General Permit provisions is proposed, special conditions which must be met before carrying out proposed actions (usually to assure compliance with other state and federal laws), management practices which must be followed while implementing the action, requirements for state water quality certification, and proof of consistency with state coastal zone management plans. NEPA compliance procedures (NPS-12), as modified by the NPS Wetland/Floodplain Guidelines, are also required.

The General Permit compliance process described in the regulations appears to be quite complex. However, since proposed actions falling under General Permits involve very minor or specialized discharges, compliance is often routine and is normally much faster than for Individual Permits. One exception is nationwide permit 26 (33 CFR 330.5 (1986), Appendix 4 of this manual), discharge of dredged or fill material into isolated waters, including isolated wetlands. Permitting for this activity has been controversial, and delays in the permitting process are common. **Again, avoidance of all wetland areas early in the planning process would be the best course of action.**

General Permits do not authorize interference with other federal projects, do not alter private or federal property rights, and do not override the need to obtain other applicable permits or authorizations.

3. The "Individual 404 Permit" process

After it has been determined by the COE that a proposed activity requires an "Individual 404 Permit," the step-by-step application and permit processing procedures diagrammed in Figure 4 apply. **Note that these steps refer only to the COE's own NEPA compliance requirements for 404 permit processing. As discussed previously in this chapter (section D, page 29-30), the NPS follows its own NEPA procedures (NPS-12) for the proposed project, however, there may be cases where a joint COE-NPS NEPA process is appropriate.**

a. Completing the application form

Form ENG 4345 is required for the permit application. The form should be obtained from the COE District Office with jurisdiction over the NPS unit (Figure 1a, Appendix 1b), since variations in the form occur in different areas to facilitate coordination with state requirements. The NPS and other federal, state, and local government agencies are exempt from the normal processing fee.

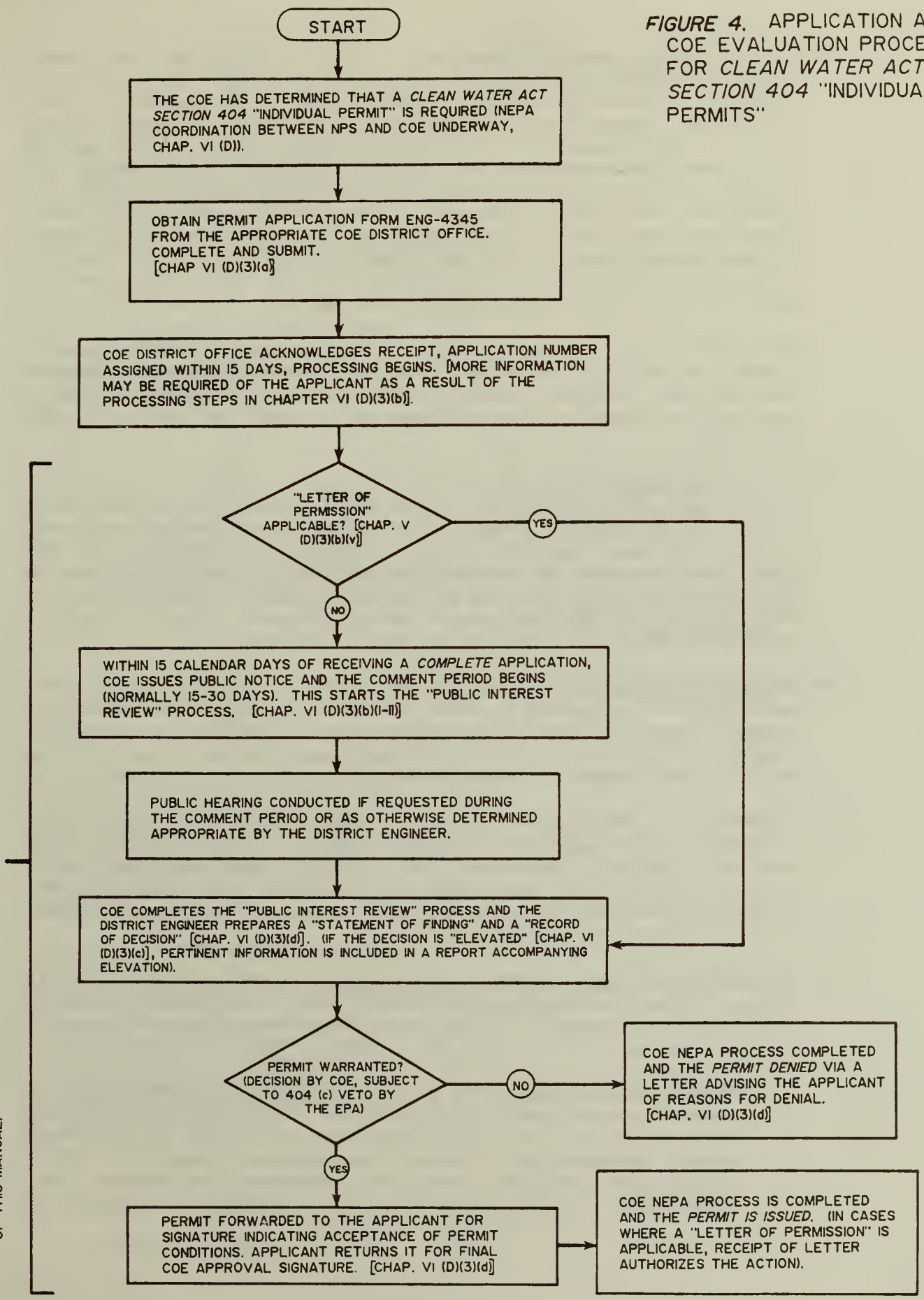
Instructions for completing the application form will be supplied by the COE. In more complex situations, the COE may require collection of new data or other information to aid in assessing compliance with the 404(b)(1) Guidelines. The case study presented in Appendix 5 of this manual includes a completed permit application for a relatively complex action in a wetland proposed by Voyageurs National Park.

b. Application processing

Standard procedures for 404 permit application processing and COE NEPA compliance, including time limits for each step, are detailed in 33 CFR 325.2(a) and (d) and are briefly summarized below.

i. "Public interest review". COE permit decisions are based upon the results of their "public interest review" evaluation. The term refers to the evaluation of the probable impacts, **including the cumulative impacts**, of the proposed activity and its intended use upon the "public interest." This amounts to balancing the benefits from the activity against the environmental and other costs. The COE's decision must reflect the national concern for both protection and utilization of important resources. Factors considered include conservation, economics, aesthetics, general environmental concerns, wetlands, water quality, historic properties, fish and wildlife values, flood hazards, navigation, food, fiber, and mineral production needs, safety, property ownership, and many others. The EPA's 404(b)(1) Guidelines provide the basis for the environmental portion of this evaluation, and no permit may be granted unless the proposal is in compliance with these guidelines.

FIGURE 4. APPLICATION AND COE EVALUATION PROCESS FOR *CLEAN WATER ACT SECTION 404* "INDIVIDUAL PERMITS"



NOTE: IF THE NPS IS A CO-LEAD OR COOPERATING AGENCY FOR THE NEPA DOCUMENTS [CHAPTER VI (D)], THEN NPS-12 AND THE NPS WETLAND/FLOODPLAIN GUIDELINES MODIFY THIS AS EXPLAINED IN CHAPTER V (B)(5) OF THIS MANUAL.

ii. Public notice/comment procedures. "Public notice" is the primary process through which the COE advises all interested parties that a proposed activity is being considered for a 404 permit and for soliciting comments and information for the public interest review process. Applicants may be required to submit additional information or follow other procedures as a result of this process to assist the COE in its evaluation. The notice typically includes descriptions and plans for the proposed project, relationship to NEPA and other regulatory processes, and the COE's evaluation factors. The comment period normally lasts for 30 days after issuance of the public notice, although extensions may be requested. (33 CFR 325.3 in Appendix 4 presents the content and procedures for the notice in detail.)

The public notice process applies to actions regulated under General Permits as well as Individual Permits. **The NPS Regional Director automatically receives these notices, however, individual NPS units may ask to be put on the notification list for the applicable COE District.**

iii. Public hearings. Public hearings may be held at the discretion of the COE in connection with 404 permit evaluations or where the COE proposes to modify or revoke a permit. The purpose is to obtain pertinent information from the public that is otherwise unavailable. **If the public notice regarding a permit application does not specify that a hearing will be held, then one may be requested by an interested party, in writing, during the public notice/comment period.** Detailed guidelines for these hearings are found in 33 CFR 327.

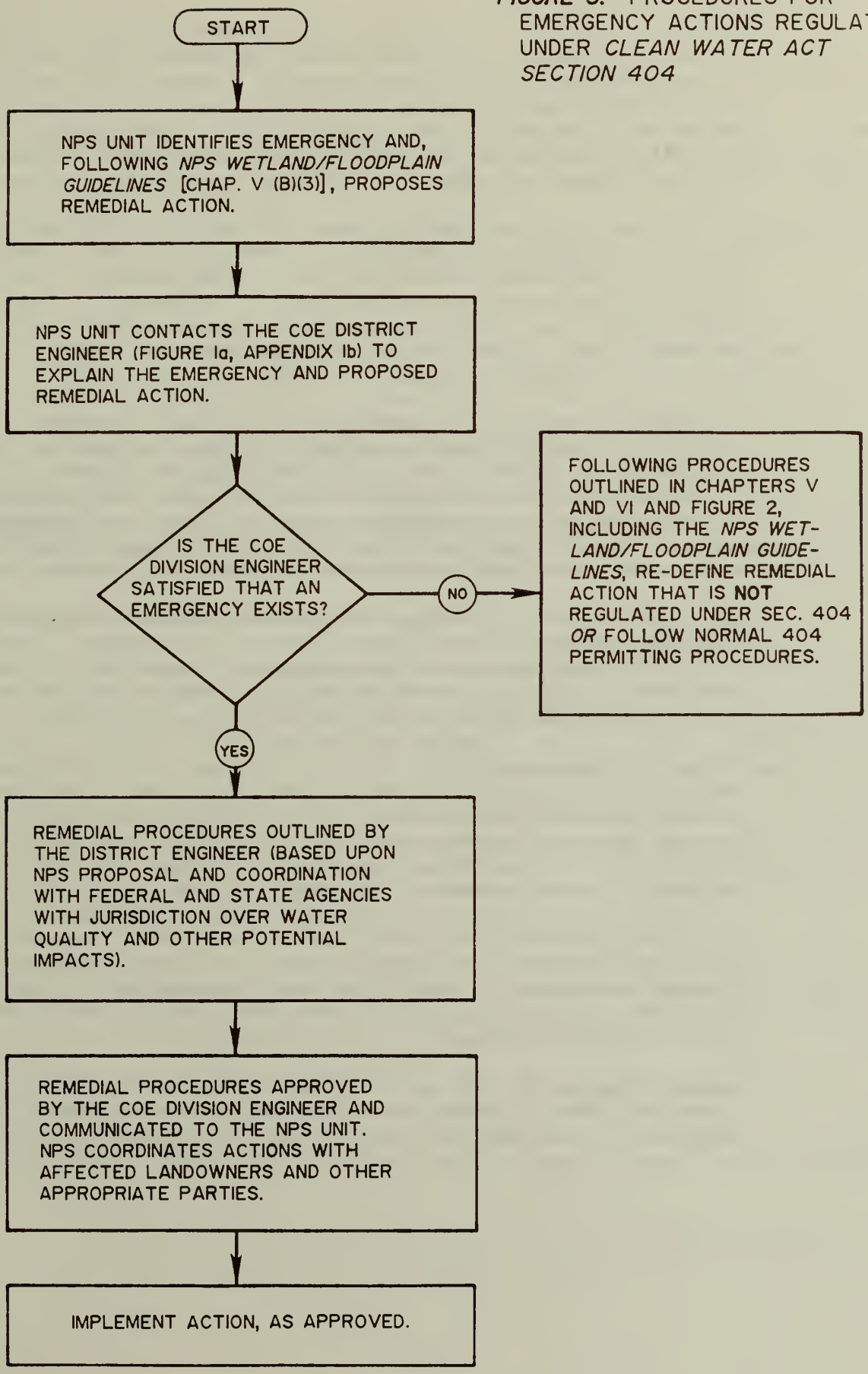
iv. Mitigation of impacts. "Mitigation" procedures are often prescribed as conditions on permits to avoid, minimize, or rectify environmental impacts associated with the proposed action. Examples of mitigation include reductions in project size and scope, changes in construction methods, and changes in maintenance and operations procedures.

"Compensatory mitigation" refers to requirements in the permit to compensate for significant resource losses, either on-site or at another location. Compensatory mitigation in wetlands cases could involve constructing new wetlands, enhancing existing wetlands, restoring previously impacted wetlands, or dedicating privately owned wetland acreage for public use.

v. Emergency and other alternative procedures in processing Individual Permits. Three alternatives to the normal individual permit processing procedures are available for use at the discretion of the COE Division or District Engineers (33 CFR 325.2 [e]):

1. Emergency procedures. COE Division Engineers are authorized to approve special permitting procedures (Figure 5) for situations **where delays in action resulting from the length of the normal permit process would cause unacceptable hazard to life, significant property loss, or immediate, unforeseen, and significant economic hardship.** In such cases involving NPS

FIGURE 5. PROCEDURES FOR EMERGENCY ACTIONS REGULATED UNDER *CLEAN WATER ACT SECTION 404*



resources, the park contacts the District Engineer with jurisdiction (see Figure 1a and Appendix 1b) to explain the nature of the emergency and to propose remedial actions. The District Engineer then submits a course of action to the Division Engineer for approval (Figure 5). (Note that the emergency procedures for E.O. 11990 outlined in section V(B)(3) of this manual also apply for actions with the potential to adversely impact wetlands.)

Even in emergencies, the COE makes "reasonable efforts" to coordinate with and receive comments from applicable federal, state, and local agencies and the affected general public. Still, park managers should develop a list of applicable contacts, including the appropriate agency from Appendix 1a and any pertinent local agencies or affected property owners, to coordinate emergency actions.

For emergency situations occurring during non-business hours, the responsible park official should still attempt to contact the applicable COE District Office and state agency (Appendix 1). If unsuccessful, the official should use his or her best judgement in taking only those actions necessary to resolve the immediate threat. The COE District Office and the state agency must be informed of the situation at the start of the next working day.

The need for early planning through Water Resource Management Plans and similar efforts in NPS units is relevant here. Parks have met strong resistance from regulatory agencies in cases where emergency situations occur repeatedly but no actions have been taken by the NPS to correct the underlying problems.

2. Letter of Permission (LOP). This is an abbreviated 404 permit process (Figure 4) that includes coordination with federal and state fish and wildlife agencies and a public interest review by the COE District Engineer, but does not require the sometimes lengthy public notice procedures discussed above. The District Engineer, through consultation with the EPA, the FWS and appropriate state agencies, develops a list of categories of activities proposed for authorization under LOP procedures. After public notice and the opportunity for comment and public hearings, a category of activities can be authorized for review under LOP procedures. A list of these categories can be obtained from the District Engineer.

3. General Permits. The COE may find that the proposed activity is authorized under a "General Permit" and subject to the abbreviated procedures as described in section D(2) of this chapter.

c. **Permit approval or denial**

If the COE determines that the 404 permit is warranted (as supported by the required NEPA documentation), the approving COE official determines the duration and any special conditions (including mitigation) to be incorporated into the permit. The permit is then forwarded to the applicant for signature indicating acceptance of the permit conditions. The applicant returns the signed permit with the appropriate fee (waived for federal, state, and local government agencies) and the approving COE official signs the permit. If the permit is not warranted, the applicant is informed in writing of the reasons for denial. This letter serves as the official denial of the permit.

As explained previously, an Interagency Agreement authorized by Section 404(q) of the Clean Water Act set up procedures for resolving disputes between the FWS, the EPA, and the COE regarding permit decisions. The procedures first seek resolution informally, but also provide for "elevation" to higher agency levels for resolution. Except for a few "special cases," the COE has final say in such elevations. However, EPA may still exercise its ultimate authority over a permit by restricting or prohibiting the activity under Section 404(c). **In cases where the NPS disputes a permit decision, it can request that the FWS "elevate" a permit decision on its behalf. The NPS can also resolve differences over permits with other Department of the Interior (DOI) agencies or with the COE through procedures established in the DOI manual (503 DM 1).**

d. **404 permit program enforcement**

The EPA and the COE have independent enforcement authority for the 404 permit program. If a violation is detected before an activity is complete, the District Engineer may issue a "cease and desist" order prohibiting any further work, and initial corrective measures may be ordered. If the activity has already been completed when a violation is discovered, the party is notified and initial corrective measures may then be ordered. The EPA also has the power to issue an "order to comply" for a party discharging without a permit or for a party violating permit conditions or limitations. This order specifies a time limit on compliance that in no case exceeds 30 days. To assure compliance, the COE or the EPA may refer the case to the Department of Justice for resolution in civil or criminal court.

In situations where apparent violations may in fact fall under the definition of **emergency actions**, the District Engineer notifies the party but may, at his discretion, allow the work to continue subject to prescribed conditions and limitations until the emergency situation is resolved.

e. **"After-the-Fact" Permits**

Following completion of any required initial corrective measures, the District Engineer may accept "After-the-Fact Permit" applications. Such applications will **not** be processed under the following circumstances:

-- If restoration of the "waters" has been completed and the possibility of current and future detrimental impacts has been eliminated by change in location, abandonment of the project and so on,

-- If federal, state, or local authorization or certification required by federal law has been denied,

-- If the District Engineer finds that legal action being taken by other regulatory agencies makes application processing inappropriate, or

-- Until any legal action determined appropriate by the District Engineer is completed.

Once an After-the-Fact Permit is determined to be appropriate, it is processed as a normal 404 permit. If the permit is denied, then final corrective measures are ordered, if needed.

VII. WETLAND INVENTORY AND ON-SITE EVALUATION PROCEDURES

VII. WETLAND INVENTORY AND ON-SITE EVALUATION PROCEDURES

A. Wetland Definitions and the NPS Inventory Requirement

The NPS Wetland/Floodplain Guidelines require that General Management Plans or subsequent NPS planning documents include wetland inventories for areas where the potential for visitor use, development, or other sources of wetland impact is greatest. The inventory is an important planning tool in that preliminary siting of "non-water dependent" projects well away from the indicated wetland borders and other waters will, in many situations, avoid location in or impacts upon wetlands.

One of the most difficult aspects of developing such inventories is deciding what defines a wetland and its borders. The numerous technical definitions of wetlands generally rely on some combination of diagnostic hydrologic, vegetation, and substrate properties. Examples include water level parameters (ordinary high water, mean low tide), presence of predominantly aquatic vegetation, and presence of hydric soils. In developing guidelines for implementing Section 404 of the Clean Water Act, the COE and the EPA have agreed upon a "regulatory definition" of "jurisdictional wetlands" as:

> **"... those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."**

Note that the "regulatory definition" includes only those areas which possess wetland hydrologic characteristics, hydric soils and, under normal circumstances, wetland vegetation.

The wetland definition in Executive Order 11990 is similar to the EPA/COE regulatory definition, but broadens the scope to include non-vegetated wetlands. In this definition, wetlands are:

> **"...those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of <u>vegetative</u> <u>or</u> <u>aquatic</u> <u>life</u> that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds."**

The FWS (Cowardin et al., 1979) has developed an even broader definition for purposes of classifying and mapping wetlands in its National Wetland Inventory (see section B of this chapter). Under this definition, wetlands are:

"...lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year."

This definition includes the non-vegetated wetlands incorporated into the E.O. 11990 definition, but it also includes non-soil wetlands (e.g. rocky shores, streambeds) as well. Though neither of these types is technically classified as wetland under the "regulatory definition," non-vegetated wetland types are subject to E.O. 11990, and both types are very likely to be regulated under Section 404 as "special aquatic sites" (40 CFR 230.40 - 230.45) or other "waters of the U.S." **Therefore, the inventory requirements of the NPS Wetland/Floodplain Guidelines are well met by the FWS's National Wetland Inventory, a comprehensive nationwide wetland inventory and mapping effort based upon the Cowardin et al. (1979) wetland definition and classification system.**

B. Recommended Sources and Procedures for NPS Wetland Inventories

Where available, the FWS National Wetland Inventory (NWI) maps should serve as the "base" NPS wetland inventory. For the NWI, the FWS uses a combination of aerial photo interpretation and limited ground-truthing to classify and map wetlands according to the Cowardin et al. (1979) system. The map products are available either as wetland areas delineated on reproductions of 7.5 minute (1:24,000) USGS topographic maps, or as mylar overlays for use with the appropriate USGS maps. Resolution (minimum wetland size mapped) ranges from 1 to 5 acres depending upon the scale of aerial photography used. Information on ground-truthing, resolution, and classification procedures can be obtained by ordering the "user notes" available for each NWI map (contact the FWS Regional Wetland Coordinator listed in Appendix 1c).

This level of wetland size and border resolution should be sufficient for most early NPS planning needs. **However, once candidate project sites have been chosen, a more detailed "on-site evaluation" must be conducted to avoid adverse impacts upon smaller wetlands not mapped in the NWI or those with insufficiently defined borders.** Procedures for on-site evaluations are discussed in section C below. Detection of unmapped wetlands, more precise delineation of borders, or other information derived from on-site evaluations can be plotted on the NWI base maps (or aerial photos) to maintain the most complete wetland inventory possible.

Park resource managers should contact the FWS Regional Wetland Coordinator (Appendix 1c) to determine if NWI maps have been completed for the area. Only about 60% of the lower 48-state area has been mapped for the NWI at this writing, however, all states within the Mid-Atlantic Region are either presently mapped or are in the process. (Eighteen per cent of Alaska and all of Hawaii have been mapped -- completion of the nationwide effort is expected by 1998.) If available, the maps can be obtained for a small charge. If the NPS unit has

not yet been mapped, the FWS Regional Wetland Coordinator can estimate a date of completion.

At this writing, Maryland, Delaware, and New Jersey NWI mapping has been fully digitized, and digital data for small, adjacent portions of Virginia, West Virginia, Pennsylvania, and New York are also available. Parks wishing to use the digital data for Geographic Information System applications should contact the FWS Regional Wetland Coordinator for further information. These data can often be acquired for a small charge.

If the projected NWI completion date for the park is not sufficiently close to meet immediate wetland inventory and compliance requirements, Interagency Agreements can be developed between the NPS and the FWS to facilitate wetland classification and mapping, usually on a 50-50 cost-sharing basis. Through such relationships, the park may be able to contribute high resolution aerial photography or offer employee time to the verification effort to achieve the highest possible level of accuracy. Other advantages include high project priority and savings associated with equipment and trained personnel offered by the FWS. The NPS would normally be responsible for 100% of costs for digitizing these maps or for re-classifying and mapping most areas already completed in the NWI.

If an Interagency Agreement or other means of mapping park wetlands are not possible, some interim sources of wetland inventory information for general planning purposes include:

-- Some state Departments of Natural Resources or equivalent agencies (see Appendix 1a) have developed inventories to support their wetland regulations or other natural resources programs.

-- Higher resolution wetland identification and mapping programs may exist in local areas where threats to wetlands and other critical aquatic areas are particularly acute. County and city regulatory and zoning offices should be contacted regarding existence of higher resolution wetland surveys.

-- U.S. Soil Conservation Service (SCS) county soil survey maps can be used in conjunction with county lists of hydric soil mapping units to delineate wetland areas on a broad scale (see C(1)(b)(i) of this section). Advice for application of this method can be obtained from the NPS-WRD, the FWS, or the SCS.

-- Aerial photography interpretation and ground-truthing by trained resource management specialists familiar with the resource can yield excellent inventory results. This is the most labor intensive of these interim inventory methods, and in most cases should be restricted to those areas where projects are pending or where assessments of suspected wetland impacts are needed. For broader survey needs, cooperative studies with the FWS should be strongly considered, as explained above.

Two more inventory-related programs may be of use to parks in their resource protection efforts:

-- The EPA has a 404 **"advanced identification" program** in areas where wetlands are particularly threatened. The program designates zones within these areas that are likely to be suitable for discharge of dredged or fill material and zones where applications for 404 permits are likely to be denied. NPS managers dealing with external threats to wetlands or other waters should work with the regional EPA office to identify adjacent areas where discharge of dredged or fill material could threaten park resources.

-- The National Oceanic and Atmospheric Administration (NOAA) is presently using National Wetland Inventory maps to determine the acreage of U.S. coastal wetlands. NPS units with coastal wetland resources should contact NOAA's Strategic Assessment Branch, 11400 Rockville Pike, Rockville, MD, 20852 to acquire this information.

C. On-site Wetland Evaluation Procedures

Once candidate project sites have been chosen based upon review of NWI maps or any of the interim wetland inventory methods described above, **on-site evaluations must be conducted to assure that the final site is truly devoid of wetland impacts. This process begins with a "preliminary wetland evaluation" at the site as discussed in section 1 below. Note that the preliminary evaluation does not take the place of the definitive wetland evaluation used in 404 permit and other decisions as discussed in section 2 below. Rather, its purpose is to assist park staff in making an initial determination of the presence or absence of wetlands at or near the site.**

If the preliminary analysis indicates that the proposed action could have any direct or indirect adverse impacts upon wetlands, the site must be avoided, where "practicable" (see NPS Wetland/Floodplain Guidelines discussion in chapter V). **Should avoidance not be practicable, then further compliance with the NPS Guidelines and with Section 404 of the Clean Water Act (chapter VI) is required. The site should also be avoided if, after conducting a preliminary evaluation, there is any doubt about the presence or absence of wetland impacts.** If avoiding the site is not practicable in such situations, advice on subsequent steps in the compliance process should be obtained from the NPS Water Resources Division.

1. Preliminary on-site wetland evaluations

The preliminary field evaluation centers on assessment of the **hydrology**, **soil**, and **vegetation characteristics** outlined in the FWS wetland definition. The evaluation should take place during wetter portions of the "growing season" (see definition of "growing season" in section b(iii) below) to facilitate plant identification and assessment of hydrologic and soil characteristics. It should be conducted by NPS resource management specialists or other professionals trained in plant identification, ecology, hydrology, environmental science, soil science, or closely related fields. Again, the NPS Water Resources Division is available for advice or assistance in this evaluation.

a. Initial steps in the preliminary on-site wetland evaluation

Three initial steps should be taken when conducting the preliminary on-site wetland evaluation:

-- Any wetlands or other waters near or at the site that are identified in the wetland inventory should be located in the field. The preliminary evaluation for these areas should focus on assuring that the actual wetland borders do not extend onto the proposed site and that no wetlands (or other aquatic habitats) will otherwise be impacted by the project.

-- The site should be evaluated for areas where wetlands which may have been missed in the NWI or other inventories are most likely to occur (e.g. small isolated depressions, poorly defined drainages in headwaters areas such as mountain meadows, or areas not readily visible from aerial photography). In many cases, the existence of such wetlands will be immediately clear based upon knowledge of local wetland types or obvious presence of wetland characteristics. (Such areas lying adjacent to or downstream from the proposed site should also be noted, and potential impacts should be considered.)

-- An assessment of disturbance at the site should be made, such as drainage, filling, farming or other factors which may have altered the soil, hydrology or vegetative features at the site. Awareness of such disturbance not only will help avoid erroneous interpretation of wetland field characteristics, but will also help identify impacted areas that should be considered for restoration under the directives of the NPS Wetland/Floodplain Guidelines.

b. Recognizing wetland characteristics in the field

In most cases, presence of wetlands will be obvious to the investigator familiar with a park's ecosystems. However, the less common wetland types, including non-vegetated wetlands, non-soil wetlands, or areas transitional into upland systems, often require closer inspection. **If evidence of <u>any one</u> of the hydrology, soil, or vegetation characteristics described in this section is discovered during the preliminary evaluation, then the site probably contains wetlands and should be avoided, where practicable. Therefore, <u>all three characteristics must be evaluated</u> before a decision on the presence or absence of wetlands or wetland impacts can be reached.**

The following "indicators" for each of the three wetland characteristics outlined in the Cowardin et al. (1979) wetland definition are drawn from the "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" (Federal Interagency Committee for Wetland Delineation, 1989), **hereafter referred to as the "Federal Manual,"** and the pamphlet "Recognizing Wetlands" (U.S. Army Corps of Engineers, 1987). (Tiner (1988) is also a very useful reference for identifying wetland characteristics in non-tidal wetlands of the Mid-Atlantic Region.) **Presence of any of these indicators warrants avoidance of the site or, where avoidance is not practicable, signals the need for additional compliance procedures outlined in chapters IV-VI.**

i. <u>Soil</u>: **"The substrate is predominantly undrained hydric soil."**

Hydric soils are soils that are saturated, flooded, or ponded long enough during the "growing season" (see definition under section iii below) to develop anaerobic conditions in the upper part (U.S.D.A., 1987). To determine their presence, investigators should contact the SCS county agent or state office to see if a soil survey has been completed for the area being evaluated. If so, a copy of the document should be obtained and the site should be located on the soils maps. Once the soil "map units" comprising the site are determined, they should be compared to the list of "hydric soil map units" available from the SCS county agent. If the soil map units at the site are "hydric" according to this method then the site should be avoided, where practicable. It must be noted, however, that such classification is general. That is, there **may** be sufficient non-wetland soil "inclusions" within a hydric soil mapping unit to allow a project to proceed without wetland impacts. Conversely, there may be hydric soil inclusions within map units that do not appear on the hydric soils map unit lists. Therefore, a field check is necessary to determine actual conditions at the proposed site.

Investigators with experience in soils analysis may choose to confirm the presence or absence of hydric soils by taking soil cores at the proposed site and comparing samples with profile descriptions in the soil survey. Once soils are identified, the most recent revision of "Hydric Soils of the United States" (U.S.D.A., 1987) may be used to determine if the soil is considered hydric. For the majority of investigators, however, the proper approach would be to look for the initial "indicators" of hydric soils in the field as outlined below. **If any of the indicators are observed, or if there is doubt, then either the site should be avoided or assistance should be requested from the SCS or the NPS-WRD for more definitive assessment.** (For those well-versed in soil science, the field indicators discussed in section 3.28 of the Federal Manual may prove more useful.) These indicators are best observed during the growing season under wet conditions. Only the upper 18 inches of soil are of interest, since it is saturation in this zone which most influences the surface habitat. The indicators are:

-- The soil has the odor of rotten eggs (hydrogen sulfide).

-- The soil immediately below the A1 horizon (the dark layer near the surface containing decomposing organic matter, usually up to 10 inches deep) has a gray, bluish-gray, or greenish-gray color, or the predominant color of the soil at this depth is dark (brownish-black or black) and dull.

-- The soil below the A1 horizon is dark but exhibits bright reddish-brown (iron oxide) "mottles," evidence of a fluctuating water table. Accumulation of iron oxide along the channels of living roots and rhizomes is also evidence of prolonged soil saturation during the growing season.

-- The soil profile consists predominantly of decomposing organic material (peat or muck).

-- The soil is sandy and has dark stains or streaks of organic material below the surface. When the soil material from these streaks is rubbed between the fingers it leaves a dark stain.

-- The soil is sandy and has a very dark-colored (black) horizon below a much lighter thick, gray horizon. (There is usually a thick, dark, surface organic horizon associated with these soils.)

-- The soil is sandy and has a layer of 3 inches or more of decomposing plant material at the surface. (Note: This is one of the least definitive indicators for those not trained in soils analysis, since organic layers may accumulate in upland sandy soils under some circumstances. Nonetheless, it is still an initial indicator signalling the need for more definitive evaluation.)

-- There is an 8 - 16 inch organic layer at or near the surface of a hydric mineral soil that is saturated with water for 30 or more consecutive days in most years. It contains a minimum of 20% organic matter when no clay is present or a minimum of 30% organic matter when clay content is 60% or greater. (Histic epipedon)

ii. <u>Vegetation</u>: **Wetlands support "predominantly hydrophytes" (plants adapted for growth and reproduction in flooded or hydric soil conditions).**

Those conducting the preliminary wetland vegetation evaluation should be able to identify plant species in the various vegetation strata using field guides or more technical plant taxonomy manuals. The investigators should also be familiar with methods used to determine species "dominance" in plant communities.

The first step in the preliminary evaluation is to assess the dominant plant species for each vegetation stratum (e.g. mature trees, saplings, shrubs, herbaceous vegetation or other appropriate divisions) over the proposed project site (see sections 3.3-3.5 of the Federal Manual). Where possible, a visual assessment of dominant species should be employed (see section 4.11 of the Federal Manual) to limit field time in the preliminary evaluation. Those choosing to apply more quantitative analytical techniques should refer to Parts III and IV of the Federal Manual.

Having established the dominant vegetation for each stratum, the next step is to determine the extent to which the dominant species in these strata are hydrophytic. This may be determined through reference to the "National List of Plant Species That Occur in Wetlands" (Reed, 1988) or any of the related regional or state sub-divisions of that document now being prepared by the FWS. These documents list the common and scientific names of the plants found in wetlands, and categorize each on a scale ranging from obligate wetland species to those only rarely found in wetlands. Sections 3.6 and 4.11 (steps 1-6) of the Federal Manual discuss how these categories are applied to the dominance evaluations to arrive at a determination of a "predominance of hydrophytic vegetation." Appropriate NPS professionals or the FWS contacts listed in

Appendix 1c should be contacted for assistance in this determination, if needed.

iii. Hydrology: **The substrate (soil or non-soil) "...is saturated with water or covered by shallow water at some time during the growing season of each year."**

Hydrology is the driving force behind wetland formation, controlling to a large extent the types of vegetation communities and soils that characterize a site. Yet, hydrologic conditions are typically the most variable of the three indicators, both seasonally and from year to year. **An apparent absence of water, whether due to artificial drainage or natural factors, does not, therefore, indicate that the site is not a wetland.** Even under extremely dry conditions, careful observation will usually turn up some evidence of periodic inundation or saturation of the substrate. Still, analysis of soil and vegetation characteristics (at sites where these characteristics exist) is more reliable for determining the presence or absence of wetlands, with hydrologic indicators best used for verification.

In the report "Hydric Soils of the United States" (U.S.D.A., 1987) the SCS defines "growing season" as the period when soil temperature at 20 inches below the surface is above "biologic zero" (41^0F). A table in that report lists the months of the "growing season" assumed for the "soil temperature regimes" used in the SCS soil classification system as follows:

Soil Temperature Regime	Months of the Growing Season
Isohyperthermic	January - December
Hyperthermic	February - December
Isothermic	January - December
Thermic	February - October
Isomesic	January - December
Mesic	March - October
Frigid	May - September
Cryic	June - August
Pergelic	July - August

The growing season for the area in question can, therefore, be determined by locating the site on the SCS county soil survey map and determining the soil temperature regimes for the soils comprising the map units. For example, a soil classified as a "Fine-silty, mixed mesic Typic Calciorthid" is assumed (from the table above) to have a "growing season" of March to October. If the SCS has not mapped soils for the area in question, the SCS county agent or state office should be able to identify the temperature regime for soils at the site.

"At some time" during the growing season may be thought of as seven or more consecutive days. This is long enough to produce anaerobic conditions in the soil, thereby limiting the plant species that can grow and reproduce at the site.

The most definitive hydrologic information is derived from gaging stations or groundwater well data, however, these data are usually not available for a site and may be difficult to apply over an area. The following simple field indicators, to be observed during the wetter portion of the growing season, provide more readily obtainable evidence of periodic flooding or saturation of the substrate common to wetlands:

-- Standing or flowing water occurs on the area for seven or more consecutive days during the growing season.

-- The soil is waterlogged. This can be determined by digging 18-inch deep hole and examining the soil. If water stands in the hole, the soil glistens with water at any depth to 18 inches, or water can be squeezed from the soil, it is waterlogged. (See section 2.7 of the Federal Manual for a more rigorous treatment of this criterion.)

-- Evidence of high water in the area exists, such as water marks or abrupt lower boundaries of lichen communities on trees, drift lines of debris, surface scouring, or thin layers of sediment deposited on plants or other objects.

-- Morphological plant adaptations are evident, such as buttressed tree trunks, multiple trunks, pneumatophores, or adventitious roots.

2. Definitive wetland identification and delineation

a. "Jurisdictional" wetlands

In the rare situation when the preliminary evaluation indicates that wetlands may be adversely impacted by a proposed project but there is no practicable alternative to the site, the COE District Office must be contacted to determine the need for a 404 permit (see chapter VI). The COE uses the Federal Manual (Federal Interagency Committee for Wetland Delineation, 1989) in making this determination. This manual, designed for identifying and delineating "jurisdictional wetlands," has great value in that it outlines a step-by-step process for evaluation of the diagnostic characteristics of wetlands regulated under the Clean Water Act and "Swampbuster" [chapter III(A)(5)(f)].

The COE District Office will determine the need for sending staff to delineate "jurisdictional wetland" borders at the site of the proposed project, and can provide other siting advice that may help eliminate wetland impacts. However, backlogs at COE District Offices for field evaluations may cause unacceptable delays in NPS project planning and construction. In such cases, park staff (or a qualified contractor) may wish to apply the methods outlined in the Federal Manual and have the results approved by the COE. In such cases, it is essential that the park consult with the COE **before** carrying out the evaluation to assure both parties that the user understands and is qualified to apply the method.

b. Actions not subject to Clean Water Act Section 404 permitting

Even when the preliminary analysis indicates presence of wetland impacts at a site, the COE may determine that a 404 permit is not required. This may occur either because the wetland does not meet the "jurisdictional definition" (section A of this chapter) or because the action is exempt (chapter VI(B)). **In such cases, the broader wetland protection requirements of E.O. 11990 and the NPS Wetland/Floodplain Guidelines still apply.** Delineation methods outlined in the Federal Manual are still applicable, **if modified such that verification of any of the three diagnostic wetland characteristics (soil, vegetation, hydrology) identifies the site as a wetland.** This assures that "non-jurisdictional" wetlands (approximately 15% of all wetland types) will still be protected as required under the NPS Wetland/Floodplain Guideline compliance process. Advice or assistance in delineation for E.O. 11990 compliance can be obtained from the NPS Water Resources Division or the FWS contacts listed in Appendix 1c.

VIII. REFERENCES

VIII. REFERENCES

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APPENDIX I (3-c). FEDERAL AND STATE AGENCY CONTACTS FOR WETLAND INFORMATION AND REGULATORY COORDINATION

Appendix 1a. Mid-Atlantic State Agency Contacts for Wetland Information and Regulatory Coordination.

Pennsylvania:	Dept. of Env. Resources Div. of Rivers and Wetlands Conservation P.O. Box 1467 Harrisburg, PA 17120 ph: (717) 797-6816
Virginia:	Vir. Marine Resource Comm. P.O. 756 Newport-News, VA 23607 ph: (804) 247-2200
West Virginia:	Dept. of Nat. Resources Off. of Env. and Reg. Affairs 1800 Washington St. East Charleston, W. Va. 25305 ph: (304) 348-2761
Delaware:	Dept. of Nat. Res. and Environ. Control Div. of Water Resources 89 Kings Highway P.O. Box 1401 Dover, Delaware 19901 ph: (302) 736-4691
New York:	Dept. of Env. Conservation Div. of Regulatory Affairs 50 Wolf Road Room 514 Albany, NY 12233 ph: (518) 457-2224
Maryland:	Dept. of Nat. Resources Tawes State Office Bldg. 570 Taylor Street Annapolis. MD 21214 Attn: Water Resources Adm. ph: (301) 974-2265
New Jersey:	Dept. of Env. Protection CN 401 Trenton, NJ 08625 ph: (609) 292-0060

Appendix 1b. Corps of Engineers District Offices with 404 Permit Jurisdiction Over Mid-Atlantic Region NPS Units

Address correspondence to: The District Engineer
U.S. Army Engineer District

District Office	MAR States w/in Jurisdiction	Joint application/ evaluation proced.
Baltimore District P.O. Box 1715 Baltimore, MD 21203-1715 Attn: NABOP-R ph: (301) 962-3670	Maryland, central Pennsylvania	Maryland
Huntington District 502 8th Street Huntington, WV 25701-2070 Attn: ORHOP-F ph: (304) 529-5487	Southern West Virginia	West Virginia (std. applic. eliminates req. for some state applications)
Norfolk District 803 Front Street Norfolk, VA 23510-1096 Attn: NAOOP-P ph: (804) 441-7652	Virginia	Virginia
Philadelphia District U.S. Custom House 2nd and Chestnut St. Philadelphia, PA 19106-2991 Attn: NAPOP-R ph: (215) 597-2812	Delaware, Eastern Pennsylvania, W. New Jersey (Delaware Water Gap)	Pennsylvania, Delaware
Pittsburgh District Federal Building 1000 Liberty Avenue Pittsburgh, PA 15222-4186 Attn: ORPOP-F ph: (412) 644-4204	Western Pennsylvania, Northern West Virginia	Pennsylvania
New York District Regulatory Branch 26 Federal Plaza New York, NY 10278-0090 ph: (212) 264-3996	Eastern New York (Upper Delaware Scenic and Recreational River)	

Appendix 1c. U.S. Fish and Wildlife Service Regional and Field Offices Serving the NPS Mid-Atlantic Region

Region 5 Wetland Coordinator: 1 Gateway Center
Suite 700
Newton Corner, MA 02158
ph: (617) 965-5100 FTS: 829-9379

State Field Offices:

Maryland and Delaware: Annapolis Field Office
1825-B Virginia Street
Annapolis, MD 21401
ph: (301) 269-5448

Pennsylvania: State College Field Office
Suite 322
315 S. Allen Street
State College, PA 16801
ph: (814) 234-4090

Virginia: White Marsh Field Office
Div. of Ecological Services
P.O. Box 480
Mid-County Center
U.S. Route 17
White Marsh, VA 23183
ph: (804) 693-6694

West Virginia: Elkins Field Office
U.S.D.A. Forestry Bldg. Rm. 311
P.O. Box 1278
Sycamore Street
Elkins, WV 26241
ph: (304) 636-6586

New York: Cortland Field Office
100 Grange Place
Room 202
Cortland, NY 13045
ph: (607) 753-9334

New Jersey: Absecon Field Office
705 White Horse Pike
P.O. Box 534
Absecon, NJ 08201
ph: (609) 646-9310

APPENDIX 2: E.O. 11990 "PROTECTION OF WETLANDS" AND THE NPS FLOODPLAIN MANAGEMENT AND WETLAND PROTECTION GUIDELINES

APPENDIX 2 EPA'S CLEAN WATER ACT SECTION 404(b)(1) GUIDELINES

[illegible] CASE STUDY BY NATIONAL PARK
[illegible] WETLAND REGULATORY COMPLIANCE
[illegible] BAY MONITORMENT, VOYAGEURS
NATIONAL PARK

Appendix 5. Case Study in National Park Service Wetland Regulatory Compliance: Black Bay Development, Voyageurs National Park

The approved General Management Plan (GMP) for Voyageurs National Park calls for development of a site on Rainy Lake. The purpose of the development is to provide visitor boat access to the northern and western ends of the park via Rainy Lake and to provide interpretation and visitor protection facilities consistent with NPS mandates. Impacts of the proposed development were addressed in the final Environmental Impact Statement for the GMP. The EIS noted that because the nature of the development is "water-dependent" and Rainy Lake is entirely bordered by wetlands, some wetlands will inevitably be impacted. Still, in compliance with the NPS Wetland/Floodplain Guidelines, practicable alternatives were considered, including "no action."

Section A below is the 404 permit application submitted to the COE in April, 1984 for the proposed Black Bay development. Section B is the "Statement of Findings" required by the NPS Wetland/Floodplain Guidelines. Section C is the approved permit as issued by the COE in December, 1985. Note in the "Special Conditions" section of the permit that certain limits were placed on the causeway construction process and an access road alignment was changed to lessen impacts upon wetlands. In addition, regrading of a no longer used causeway to the elevation of the surrounding marsh and removal of fill in an open water area were required as compensatory mitigation.

A. Clean Water Act Section 404 Permit Application for the Black Bay Development, Voyageurs National Park

APPLICATION FC A DEPARTMENT OF THE ARMY PERM'
Fc. use of this form, see EP 1145-2-1

Form Approved - Office of Mgmt & Budget No. 49-R0420

The Department of the Army permit program is authorized by Section 10 of the River and Harbor Act of 1899, Section 404 of P. L. 92-500 and Section 103 of P. L. 92-532. These laws require permits authorizing structures and work in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Information provided in ENG Form 4345 will be used in evaluating the application for a permit. Information in the application is made a matter of public record through issuance of a public notice. Disclosure of the information requested is voluntary; however, the data requested are necessary in order to communicate with the applicant and to evaluate the permit application. If necessary information is not provided, the permit application cannot be processed nor can a permit be issued.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and checklist) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

1. Application number (To be assigned by Corps)

2. Date

Day Mo. Yr.

3. For Corps use only.

4. Name and address of applicant.

Voyageurs National Park
Box 50
International Falls, Minn.
56649

Telephone no. during business hours

A/C (218) 282-3821
A/C ( ) FTS 725-4242

5. Name, address and title of authorized agent.

Russell Berry, Superintendent
see #4

Telephone no. during business hours

A/C ( )
A/C ( )

6. Describe in detail the proposed activity, its purpose and intended use (private, public, commercial or other) including description of the type of structures, if any to be erected on fills, or pile or float-supported platforms, the type, composition and quantity of materials to be discharged or dumped and means of conveyance, and the source of discharge or fill material. If additional space is needed, use Block 14.

See attached packet, maps, drawings, and photographs.

7. Names, addresses and telephone numbers of adjoining property owners, lessees, etc., whose property also adjoins the waterway.

8. Location where proposed activity exists or will occur.

Address:

Street, road or other descriptive location

In or near city or town

County State Zip Code

Tax Assessors Description: (If known)

Map No. Subdiv. No. Lot No.

Sec. Twp. Rge.

9. Name of waterway at location of the activity. Rainy Lake

ENG Form 4345, 1 OCT 77 Edition of 1 Apr 74 is obsolete.

0. Date activity is proposed to commence. 6/1/84

Date activity is expected to be completed 10/15/85

11. Is any portion of the activity for which authorization is sought now complete? ☐ YES ☒ NO
If answer is "Yes" give reasons in the remark section. Month and year the activity was completed _____. Indicate the existing work on the drawings.

12. List all approvals or certifications required by other federal, interstate, state or local agencies for any structures, construction, discharges, deposits or other activities described in this application.

Issuing Agency	Type Approval	Identification No.	Date of Application	Date of Approval

13. Has any agency denied approval for the activity described herein or for any activity directly related to the activity described herein?

☐ Yes ☐ No (If "Yes" explain in remarks)

14. Remarks or additional information.

15. Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

_____
Signature of Applicant or Authorized Agent

The application must be signed by the applicant; however, it may be signed by a duly authorized agent (named in Item 5) if this form is accompanied by a statement by the applicant designating the agent and agreeing to furnish upon request, supplemental information in support of the application.

18 U. S. C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of The United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisioned not more than five years, or both. Do not send a permit processing fee with this application. The appropriate fee will be assessed when a permit is issued.

St. Paul District, Corps of Engineer
St. Paul, Minnesota 55101
NCSED-ER

INTRODUCTION

An important step in the permit processing procedure for any project is the review of its initial, cumulative and long-term effects on the environment. In order to expedite the analysis of the environmental effects of your permit application we are requesting information covering most natural and cultural resources which may be affected. We ask that you provide a thorough description of your proposed project and answer each question as it applies to the work and the results of that work. Complete and accurate answers will prevent unnecessary delays in processing your permit application. Space for answers has been provided; however, in some cases you may wish to write on the back of a page or attach additional pages.

GENERAL INFORMATION

Applicant's Name: National Park Service, Department of the Interior

Voyageurs National Park)

Address:

Box 50, International Falls, Minn 56649

Telephone Number:

218-283-9821 FTS725 4242

Applicant's Authorized Agent:

Name: Russell Berry, Superintendent

For information contact Raoul Lufbery

Address:

ibid

Telephone Number:

ibid

Date Sent to Permit Applicant:

Date Received in District Office:

PROJECT DESCRIPTION:

a. Provide the legal description of the land as it appears on your deed.

b. Attach drawings of the project layout, showing site plan, grades, elevations, and dimensions as applicable.

Attached

c. Provide a map showing the project location (a U.S.G.S. Quadrangle map or a county map would be excellent).

Attached

d. Submit color photographs of the site, with explanations of the views shown (prints only). Photographs help us to better understand your project. The more you provide the easier it is to understand and process your application.

Attached, labelled, with caption sheet.

e. What will your project cost to complete?

4.7 million dollars

f. When do you expect to start construction? How long will it take?

June, 1984 5 years

g. How long do you expect the project to be usable? (Example, a boat dock may last 15 years.)

50 years

h. Carefully describe the entire project in detail to allow a thorough evaluation of its environmental effects. The method of construction, including equipment and materials to be used, must be included. Detail in your description is important. (Use the back of this page to complete your description.)

see the attached sheet.

ATTACHMENT A

The project consists of three main points: (1) improvements to county road 96, (2) installation of a visitor center and parking lot with associated sanitary facilities, and (3) improvement of a bay and provision of docking facilities, all on or near Black Bay, Voyageurs National Park, Minnesota.

Within of Voyageurs National Park, rhe National Park Service will upgrade County Road 96 to a 12 foot/3 foot land/shoulder standard. The widening of an existing 300-ft causeway from a roadway width of 16 ft to about 30 ft will require the filling of 4,200 sq ft of wetland to a height of 1112.5 ft; the fill will eventually be colonized by emergent vegetation as the present causeway has been.

To avoid a confusing curve, an intersecting road will be straightened at the east end of the causeway, necessitating the filling of about 500 sq ft of wetland.

To provide trailer parking and access to the picnic area, three portions of a marsh (see attached drawings) will be filled to a height of approximately 1110.5 ft. These three fill areas will impact a total 3,500 sq ft of wetland.

The visitor center and associated parking lot and septic area will require the removal of approximately two acres of mixed coniferous/deciduous woodland. Thin soils over bedrock require two mound type septic systems.

The docking facility will be located in an existing cove that has been previously dredged. The plans call for the modifying the shape and lowering the depth of the cove from an irregular bottom to a consistent navigable depth of 1,102.0 feet. Within this cove will be 41 boat slips, four houseboat and shuttle boat slips and a three boat launch ramp. The adjacent shoreline will be stabilized by a timber bulkhead.

The construction procedure will be to provide a cofferdam across the mouth of the cove and dewater the site to minimize increases in the turbidity and consequent disturbances to spawning in Black Bay. Approximately 12,500 cubic yards of soft clay and 500 cubic yards of rock material will be dredged from the cove and hauled to an inland location. Approximately 12,500 yards of clean granular material will be hauled to this site from an inland source and will be used for bulkhead and parking lot fill.

It is not possible to predict the type and size of construction equipment to be used because this will be somewhat at the discretion of the private contractor, however, we anticipate the use of the following: blasting operations, clam shells, bulldozers, cats, dump trucks, compaction equipment, front loader, etc.

POTENTIAL IMPACTS:

To determine to what degree the proposed project will affect the quality of the human environment, its effects on natural and cultural resources must be evaluated. The following questions must be answered as completely as possible, according to the information available to you. State whether the project will affect the resources beneficially, adversely, or not at all and why it will do so. If any measures will be implemented to prevent or correct adverse effects on any of the resources, they should be explained. Again, sound and complete answers will simplify and prevent unnecessary delays in the permit processing procedure.

A. Natural Resources

a. Describe the vegetation (trees, brush, ground cover, etc.) in the project area. List both the type (maple, oak, dogwood, etc.) and approximate number of each.

Jackpine, whitepine, red oak, scrub oak, white oak, sugar maple, birch, alder, in the visitor center/parking lot/ picnic area. Standard mixed conifer/ deciduous mixture.

What vegetation is found in the water? List the type and amount.
10% phragmites, bur reed, bulrush; 90% cattail.

What effects will your work have on the vegetation? Will you have to cut down trees, dig up sod, or clear the brush?

Approximately 8000 square feet (1/5 acre) of marsh vegetation will be filled over. Approximately 2 acres of mixed woodland will be cut. Grading and road alignment work will disturb soils.

b. What kinds of fish do you know are in the project area? List as many as you can.

Northern pike, yellow perch, smallmouth bass, walleye, common sucker, cyprinid species (minnows).

How will their habitat (place where they live) be affected by your project?

Expanding the size of the bay from about 3/8 to about 1/2 acre will minimally increase cyprinid and northern pike habitat after the coffer dam is removed and water returns to the area. Filling the 8000 sq.ft of wetland will diminish northern pike spawning habitat minimally.

c. What kinds of animals have you seen in the area? Sightings and signs (tracks, droppings, etc.) are an indication of their presence. List as many as you can and how often you have seen them.

Mink, muskrat, beaver, squirrel, chipmunk. Possible whitetail deer. Variety of songbirds - redwing blackbirds, sparrow species, etc. Some waterfowl use; no nests of osprey or eagle. No known threatened or endangered species.

How will their habitat be affected by your project?

The loss of 8000 sq feet of wetland will be a negative impact on songbirds, waterfowl, and creatures preying on them. The increase in the size of the bay and the use of it will provide extra, non-natural nutrients, increasing the number of individuals of some scavenging species.

d. What are the major soil types (clay, sand, silt, peat, etc.) on your property and what is the approximate percentage of each?

shallow sandy loam (usually less than 18 inches to bedrock), usually coarse-textured and slightly acidic due to conifer litter and acidic bedrock. In the wetlands, calcareous lacustrine varval clays with accumulations of rotting litter.

How will the work prevent or contribute to the problem of soil erosion?

During construction, despite mitigating techniques, soil erosion will temporarily increase. After conclusion, there will be no change.

e. What is the quality of the air in the project area, and what factors contribute to it (factories, cities, etc.)?

Excellent. Some pollutant drift from the paper mill at International Falls.

Will the construction or operation of your project cause the discharge or elimination of discharge of smoke, dust, exhaust, etc. into the air. If yes, please describe.

Yes. Operation of heavy earthmoving equipment (approximately 3 machines of the d-9 cat class) and 5 2.5-ton trucks will cause diesel emissions during 4 months of each year of construction. Dust is expected to be minimal due to the humidity and coarse soil. Increased visitor traffic will result in increased auto emission from approximately 80 cars/day.

f. How will the project affect the quality, quantity and drainage patterns of the surface water(lakes, rivers, ponds, etc.) in the surrounding area?

Minimal alteration in surface water quantity; paved parking lot will cause more rapid runoff to lake, but thin soils already quickens runoff. Slight increase in petroleum pollutants (see attachment B)

What substances (oil, fertilizers, heated water, etc. will be discharged into the surface water?

Motor oil drip, gasoline drip and spills, outboard motor oil.

What discharges will be prevented by the action?

None. Settling trenches will mitigate parking lot oil drip runoff.

g. In what way will the quality and quantity of the groundwater (below the water table) be affected by the project?

Effect will be minimal; parking lot and road paving will channel off about 2 acres worth of precipitation as surface runoff; this would have infiltrated the soil as groundwater. However, the thin soils would have flowed this water out almost as quickly as surface runoff.

h. Will the project have an effect on the floodplain of the adjacent waterway?

No. Dock facility must be located adjacent to the lake, and is an exception under Section 5-b-3 of the NPS Guidelines, 45 FPR 35916, as revised by 47 FPR 36718.

Will it raise or lower the water levels during a flood?

Minimally lower them; somewhat more will be excavated than will be filled, but the effect will be less than 1 acre-foot of increased lake storage out of a capacity of hundreds of thousands of acre-feet.

i. Many areas have unique natural features, such as scenic areas, old trees, or geological formations, which may be of local or national interest. If there are any within the project area, describe them and explain in detail how they may be affected by your project. Scenic views in the area may be of local or regional significance. They will be made more accessible to the public by provision of facilities and design oriented to reveal and enhance them.

j. If there are any additional natural resources which you feel may be affected, either beneficially or adversely, please describe them and how they may be affected.

none

B. Cultural Resources

a. Describe what the adjacent pieces of property are being used for. Also show that use on the site plan you are providing. (You may wish to provide photographs to illustrate this use.)
Summer cabins and resort use; some icefishing

b. Will land use patterns be likely to change as a result of your proposed project (wild land become residential, residential land become more desirable, swamp become farmland, etc.)? Yes. Resort use will cease on the property, and be replaced with public use and federal ownership. No other landownership pattern changes are anticipated.

Explain how land use may change and to what extent?

See above. It is not expected that peak summer season daily use of 80 cars at this site will attract commercial facility development on the access road.

c. What evidence has been found that would indicate the area has historic value? Items of interest would be arrowheads, burial mounds, old buildings, known settlements and the like.

None.

d. How will recreation opportunities such as boating, fishing, or camping in the area be affected? By providing better access, launching, and parking, recreation use will be increased. Provision of interpretation and NPS visitor protection activities will enhance recreation safety and offer greater depth of experience to the visitor.

e. How will your project contribute to the economic development of the area? It is not expected that the design load of 80 cars/day in the summer will substantially affect the development of the area, either by attracting new facilities or be causing the expansion of old.

Will it bring in new business, or have a negative effect on development?

The effect will either be neutral, or slightly positive on economic development in the area, but it is expected that most incremental increases in tourist income will obtain in International Falls proper.

Is the area rural, residential or industrial?

Rural.

f. Noise levels, if contrasting greatly with those of the surrounding environment, can be a nuisance. What noise (describe the source) is expected to increase as a result of the project? Construcion activities will cause an increase in noise levels temporarily; it is anticipated that these will remain below 90db. When the facility is operating, noise from auto traffic and recreation activities will be a continuing summer impact, but this is not expected to equal the noise on a residential street, and should be buffered by the surrounding forest.

Will it be temporary (during construction) or will it be continuing (after the project is completed)?

see above.

g. What effect will the project have on navigation in the affected waterway? For example, a structure, such as a power pole, may hinder navigation; whereas a harbor could benefit navigation. The bay/docking facilities by providing a harbor, and the presence of rescue/information services, will benefit navigation. Increased boat traffic in the area increases the likelihood of collision in the bay or the waters just outside it.

h. If there are any other cultural resources which you feel may be affected, either beneficially or adversely, please list and explain them.

none

ALTERNATIVES:

Discuss all the alternative sites or procedures you considered but did not select, including the possibility of doing nothing. State your reasons for preferring the proposed project to these alternatives.

See attachment C

POLLUTION:

What potential does your project have for pollution of the environment? Will the materials used or affected contribute to the following categories? (Answer yes or no)

1. Turbidity (Cloudiness) - Minor increase during the coffer dam construction and dewatering operation.
2. Water discoloration - n/a
3. Oil or other petroleum products - increase due to parking lot drip and outboards.
4. Organic matter (leaves, wood, peat, etc.) - decrease due to 2-acre paved area.
5. Foam - n/a
6. Scum - n/a
7. Litter or Trash - increase due to public use.
8. Odor - increase due to outboard and snowmobile use.
9. Nutrients (Nitrogen, Phosphorous, etc.) - increase due to fish cleaning and food littering by visitors. Minimal effect.

What will you do to prevent or correct the problems answered "yes" above?

The coffer dam itself prevents the turbidity due to dredging.
We intend to use settling trenches to catch parking lot drip.
We cannot mitigate the of organic matter due to paving the parking lot.
We will use educational efforts to diminish littering, and enforce penalties against it. We will maintain the area.
We cannot mitigate odors of combustion.
We will mitigate nutrient increases as described under litter..

DISPOSAL:

If your project requires a disposal area, such as a dredging project may have, describe it and the effects your disposal material will have on the previously mentioned natural and cultural parameters. Include a detailed description of the disposed material and its potential for pollution. Photographs of the disposal site must be provided.

See attachment C

Signature: _____

Title: _____

Date: _____

ATTACHMENT B

Question A.f. (continued): will be caused by the increase in use of outboard motor boats and by runoff of petroleum drip from the parking lot. It is planned to use a settling trench to trap oils emanating from the parking lot. These increases are therefore expected to be minimal.

ATTACHMENT C

ALTERNATIVES

Several alternatives were considered including no action. Implementation of the no action alternative would have left the area in private ownership with no access or interpretation in the northern end of the lake and national park.

Several road realignments were considered that would improve the flow of both vehicles and pedestrians, but at the expense of filling about four to five times as much of the marsh. Other alternatives were also considered for the dredging and excavating of the bay and its docking facility.

This alternative was selected to provide interpretation, orientation, and protection to visitors as well as passage for large RV units while minimizing incursions into the wetland areas. This location for expanding the bay was selected because it was previously disturbed and would require the least amount of excavation and blasting.

DISPOSAL (continued)

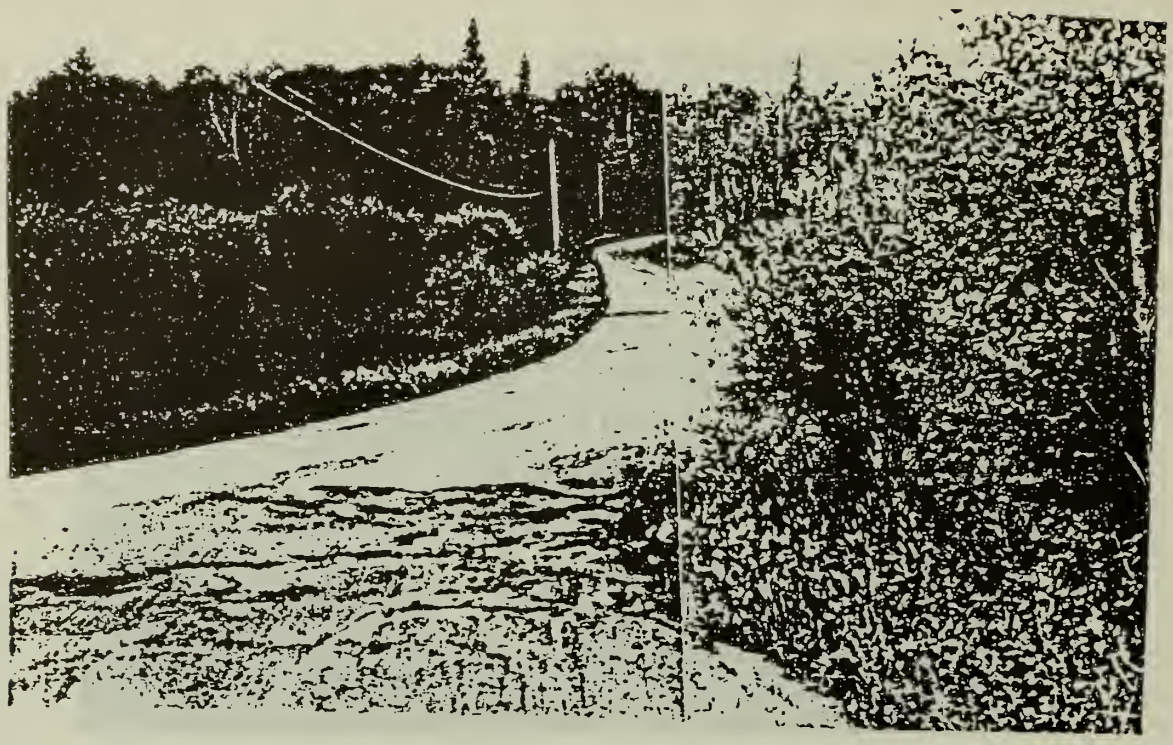
It is not possible to describe the site specifically because the exact location depends on awarding a contract. However, the varval, calcareous, lacustrine clays excavated from the bay/docking facility area will be disposed of in either an inland quarry and possibly the same quarry from which the road fill material is obtained. No excavated material will be placed in or adjacent to a lake or wetland.

SITE PHOTOGRAPHS

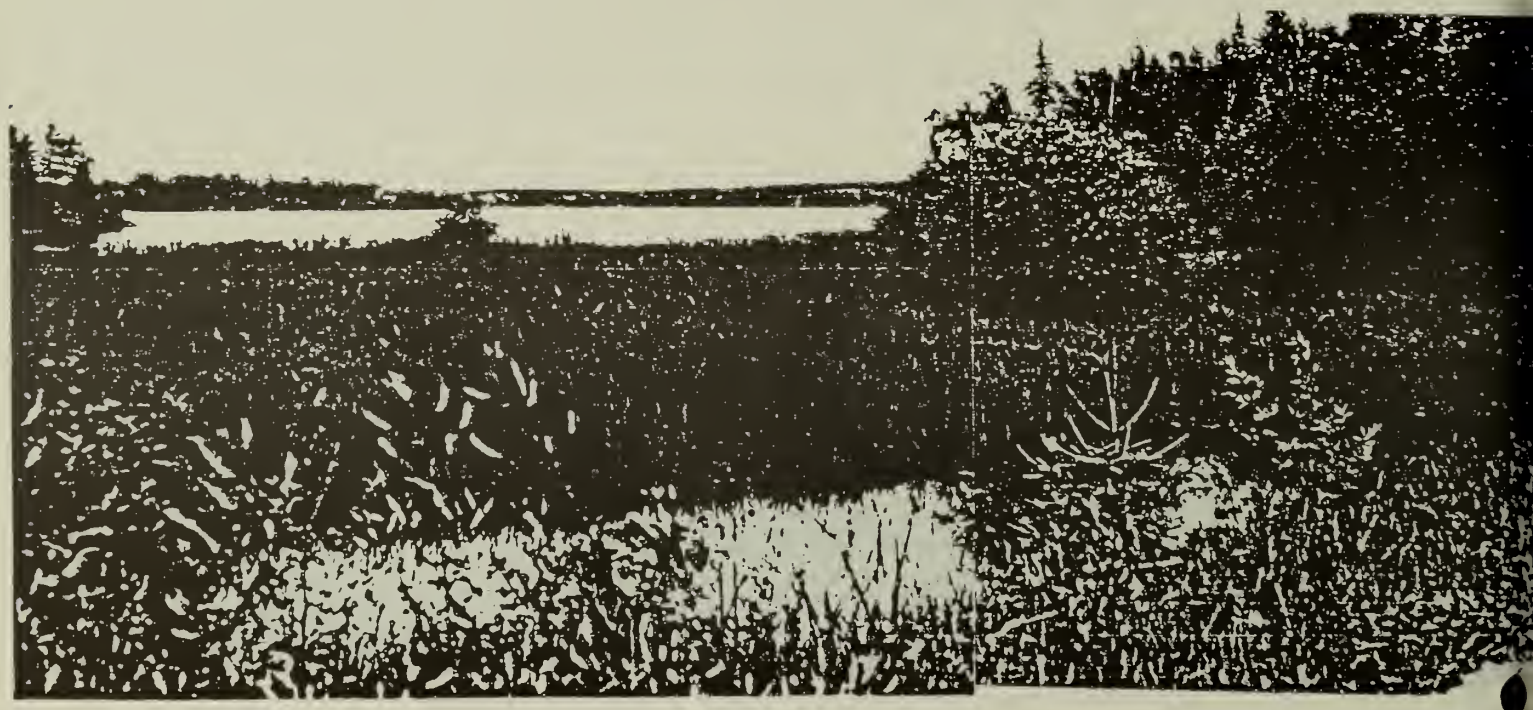
1. AERIAL VIEW OF EXISTING BLACK BAY COVE

2. VIEW OF WETLAND WEST OF SECTION B

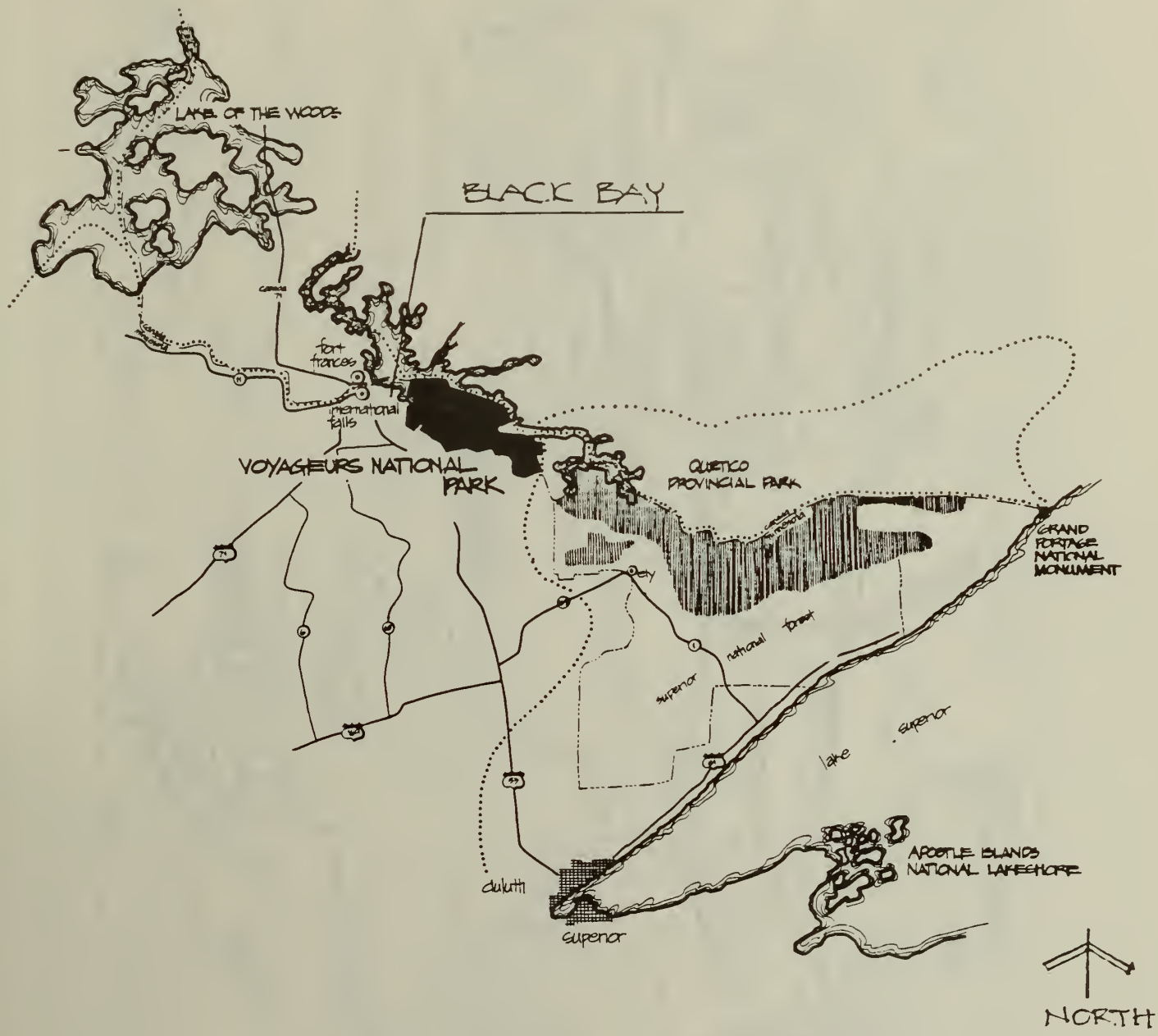
SITE PHOTOGRAPHS



3. VIEW OF ACCESS CAUSEWAY WEST TO SECTION A



4. VIEW NORTH ON ACCESS CAUSEWAY AT SECTION A



VICINITY MAP

SHEET 1/5	DEVELOPMENT PLAN BLACK BAY, RAINY LAKE KOOCHICHING COUNTY VOYAGEURS NATIONAL PARK STATE OF MINNESOTA
DATE 2/84	NAT. PARK SERVICE - DEPT. OF INT.

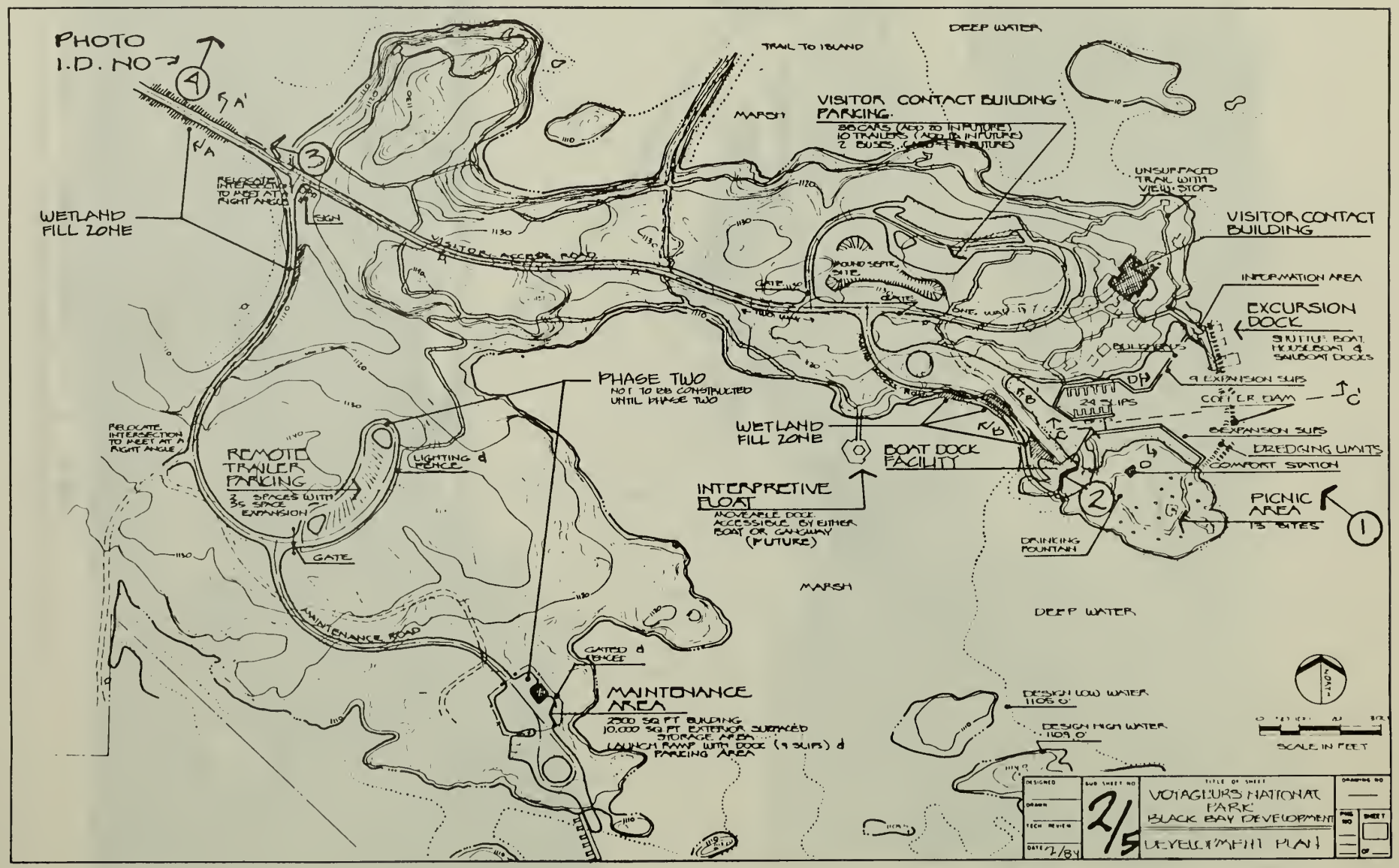
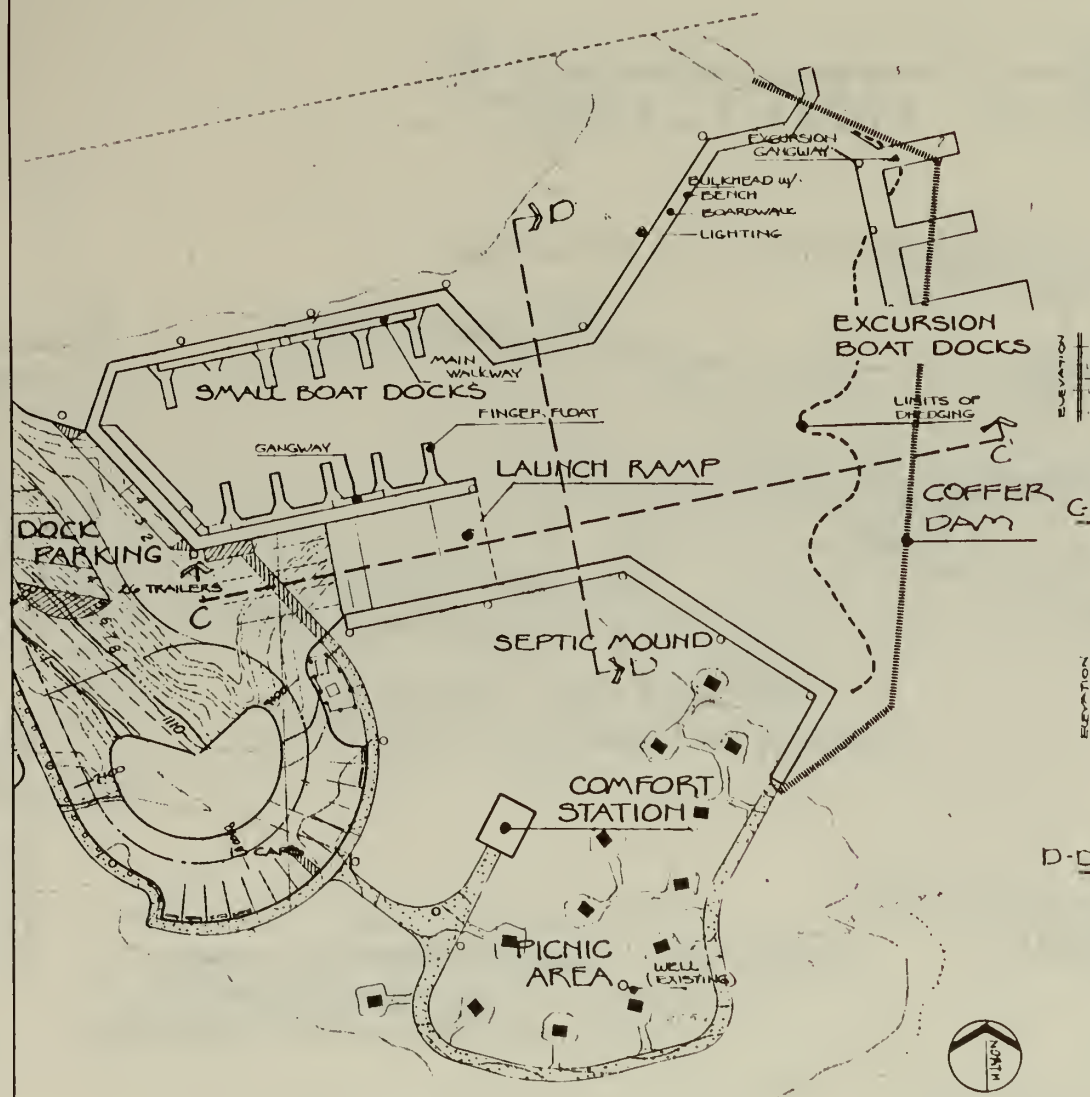
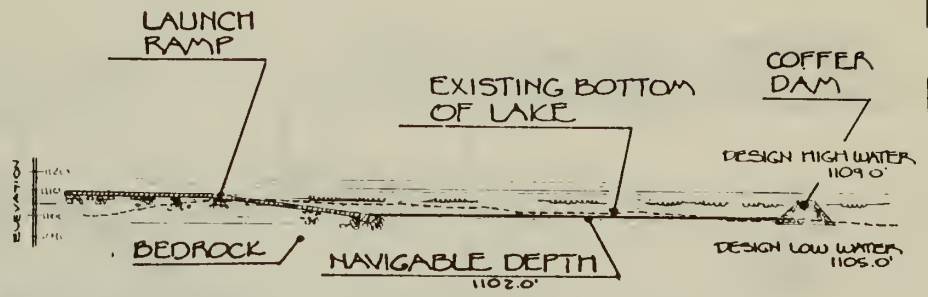


PHOTO I.D. NO
A
A'
TRAIL TO ISLAND
DEEP WATER
MARSH
VISITOR CONTACT BUILDING PARKING
36 CARS (ADD 20 IN FUTURE)
10 TRAILERS (ADD 15 IN FUTURE)
2 BUSES (ADD 1 IN FUTURE)
UNSURFACED TRAIL WITH VIEW STOPS
VISITOR CONTACT BUILDING
INFORMATION AREA
EXCURSION DOCK
SHUTTLE BOAT, HOUSEBOAT & SAILBOAT DOCKS
9 EXPANSION SLIPS
24 SLIPS
COFFER DAM
C
C'
8 EXPANSION SLIPS
DREDGING LIMITS
COMFORT STATION
PICNIC AREA
13 SITES
1
2
3
DRINKING FOUNTAIN
WETLAND FILL ZONE
RELOCATE INTERSECTION TO MEET AT A RIGHT ANGLE
SIGN
VISITOR ACCESS ROAD
GATE
PHASE TWO
NOT TO BE CONSTRUCTED UNTIL PHASE TWO
WETLAND FILL ZONE
BOAT DOCK FACILITY
INTERPRETIVE FLOAT
MOVEABLE DOCK ACCESSIBLE BY EITHER BOAT OR GANGWAY (FUTURE)
RELOCATE INTERSECTION TO MEET AT A RIGHT ANGLE
REMOTE TRAILER PARKING
3 SPACES WITH 35 SPACE EXPANSION
LIGHTING & FENCE
GATE
MAINTENANCE ROAD
GATED & FENCED
MAINTENANCE AREA
2500 SQ FT BUILDING
10,000 SQ FT EXTERIOR SURFACED STORAGE AREA
LAUNCH RAMP WITH DOCK (9 SLIPS) & PARKING AREA
DESIGN LOW WATER 1105.0'
DESIGN HIGH WATER 1109.0'
NORTH
SCALE IN FEET
DESIGNED
DRAWN
TECH REVIEW
DATE 7/84
SUB SHEET NO 2/5
TITLE OF SHEET
VOYAGEURS NATIONAL PARK
BLACK BAY DEVELOPMENT
DEVELOPMENT PLAN
DRAWING NO
SHEET

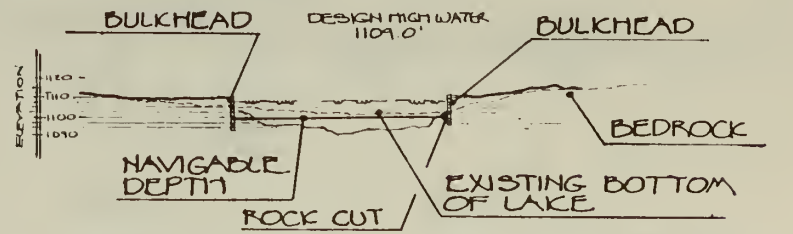


PLAN - PROPOSED COVE



C-C' SECTION WEST TO EAST THRU COVE

SCALE 1" = 30' VERTICAL & HORIZONTAL

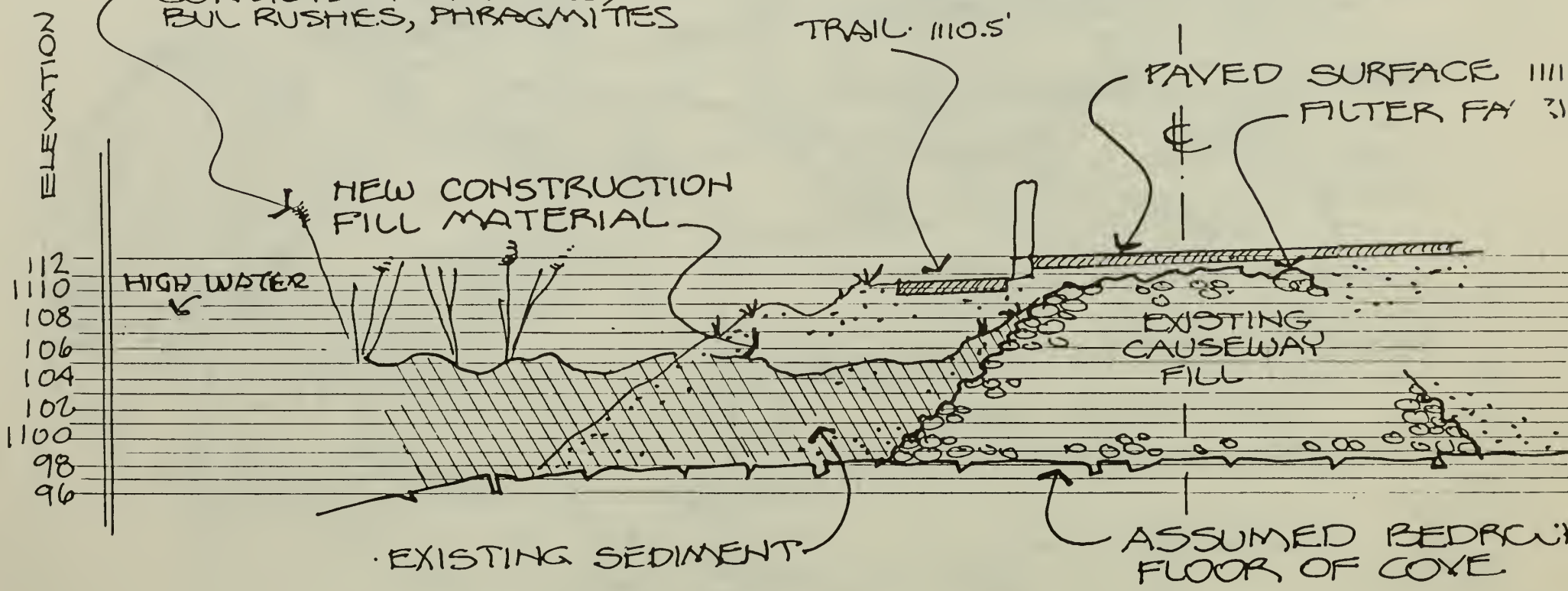


D-D' SECTION SOUTH TO NORTH THRU COVE

SCALE 1" = 30' VERTICAL & HORIZONTAL

SHEET 3/5	DEVELOPMENT PLAN BLACK BAY, RAINY LAKE KOOCHICHING COUNTY VOYAGEURS NATIONAL PARK STATE OF MINNESOTA
DATE 2/84	NAT. PARK SERVICE - DEPT. OF INT.

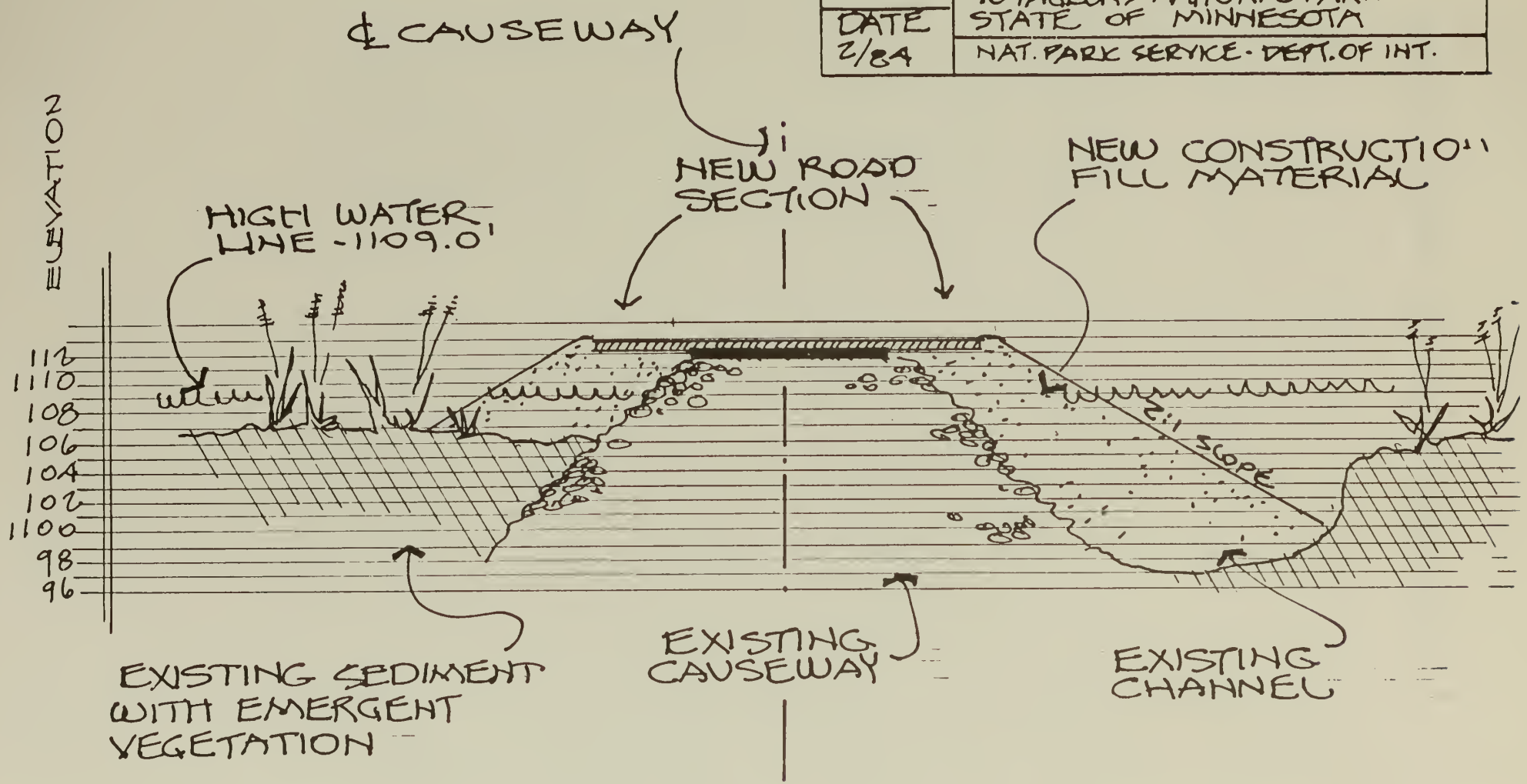
SHEET 4/5	DEVELOPMENT PLAN BLACK BAY, RAINY LAKE KOOCHICHING COUNTY VOYAGEURS NATIONAL PARK STATE OF MINNESOTA
DATE 2/84	NAT. PARK SERVICE · DEPT. OF INT.



SECTION A-A' THRU CAUSEWAY

NO SCALE

SHEET 5/5	DEVELOPMENT PLAN BLACK BAY, RAINY LAKE KOOCHICHING COUNTY VOYAGEURS NATIONAL PARK STATE OF MINNESOTA
DATE 2/84	NAT. PARK SERVICE - DEPT. OF INT.



SECTION B-B' THRU CAUSEWAY ON COUNTY ROAD 96

NO SCALE

B. "Statement of Findings" for the Black Bay Development

STATEMENT OF FINDINGS

The approved General Management Plan for Voyageurs National Park calls for the Black Bay area of Rainy Lake to become the primary, year-round development site for the provision of visitor protection, interpretation, and access to the northern and western end of the park. To that end, a visitor contact station, docking facility, boat ramps, picnic area, access roads, and parking lots, were recommended. The impacts of this development, including effects on wetlands, were in the final environmental statement (FES 80-4) for the General Management Plan.

I. Why Actions Must be Located in the Wetland

The configuration of the development site and its relationship to wetland areas (see map) requires the use of wetlands.

II. Alternatives Considered

No Action

In this alternative, the site would remain in private ownership, there would be no National Park Service provision of orientation, interpretation, access, and visitor protection to the northern and western end of the park. The alternative was judged unacceptable because the provision of these services is a part of the National Park Service mandate.

Siting alternatives

Other sites in the area were considered but did not offer the combination of minimal environmental impacts (this site was previously developed for resort and summer residential use), convenience of access under all-season conditions, and proximity to the portion of the lake where service was required. Consequently other sites would have required more expensive and environmentally damaging construction techniques. The nature of the development (water-related) and the ubiquitous distribution of wetlands around Rainy Lake would result in impacts to wetlands wherever the proposed facility is located.

Alignment alternatives

Other alignments for the upgrade of the access and internal circulation roads were considered. These offered minimal increases in sight distance and aesthetics, while impacting four to five times as much wetland area. These alternatives were rejected for that reason.

Selected alternative

The access road is being upgraded to accommodate increased visitor use (12-ft lane, 3-ft shoulder). The National Park Service will:

(1) widen a causeway from a roadway width of 16 to 30 feet, filling about 4,200 sq ft of wetland

(2) realign a dangerous and confusing curve, thus filling the tip of a marsh, approximately 500 sq ft

(3) develop an internal circulation road that will impinge on three portions of a marsh, totaling about 3,500 sq ft.

This alternative offered the minimum impact on wetlands.

III. Conformity with Federal, State, and Local Standards

The National Park Service has applied for Section 404 permits for this development from the U.S. Army Corps of Engineers, as well as for applicable permits from the Minnesota Department of Natural Resources. There are no local wetland permit requirements.

IV. Modifications to Minimize Harm

The alternative selected has been refined several times in order to minimize its impact on the wetlands associated with Rainy Lake. Road alignments have been shifted to avoid or minimize the problem and still be consistent with safety and visitor service needs. Because filling will minimally diminish the wetland buffer effect on water quality, buffers to absorb petroleum runoff pollution from the parking lot will be installed.

V. Effects on Natural or Beneficial Wetland Values

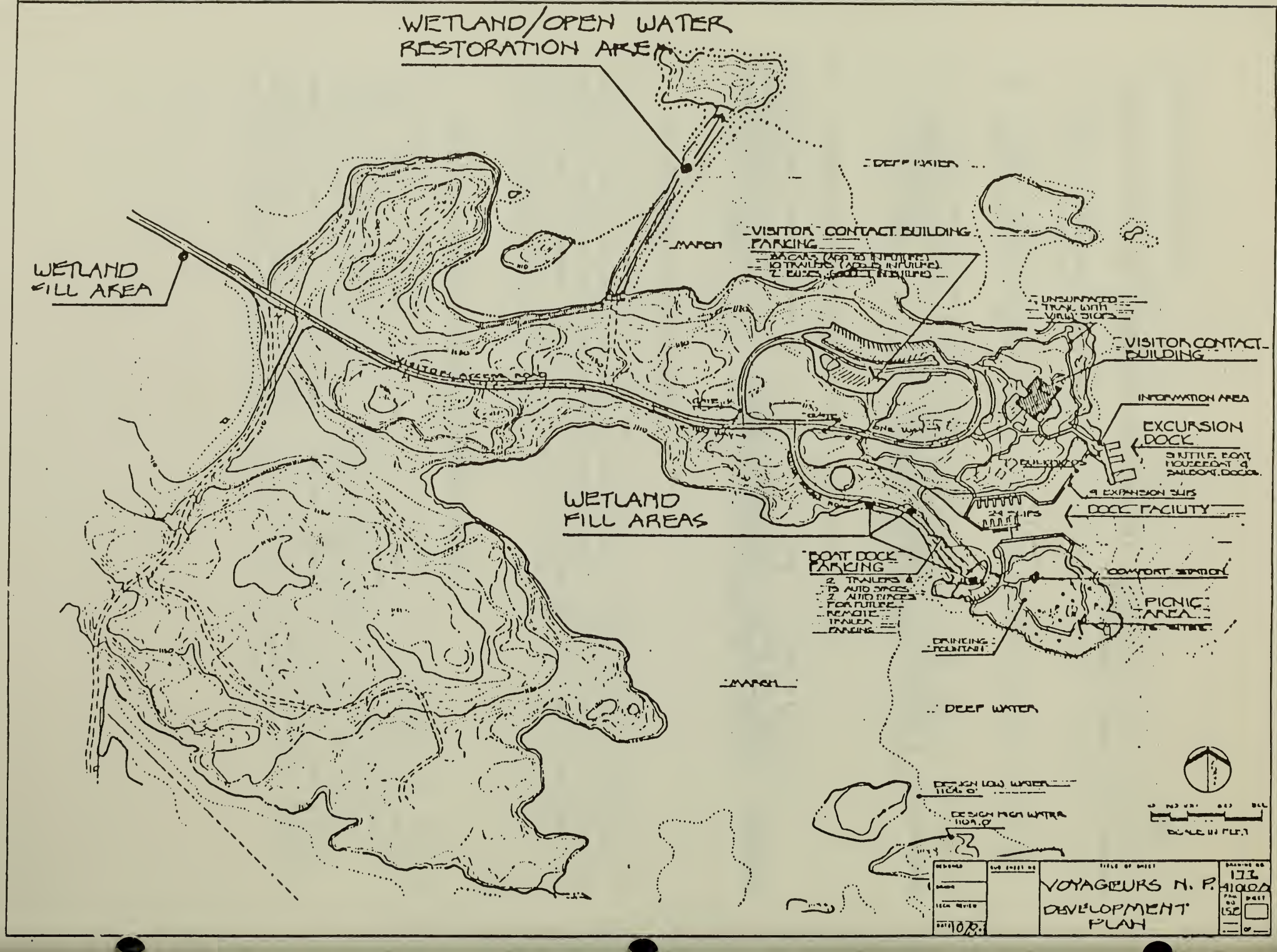
The proposal will require the filling of wetlands totaling 8,200 sq. ft, at five sites along the entrance and internal circulation roads. None of the sites is larger than about 4,200 sq ft (0.1 acre). This section will result in the following detrimental effects on natural wetland values: loss of emergent vegetation on that area, with the consequent displacement and probable loss of some individuals from representative wetland species -- songbirds, waterfowl, and cyprinids. There is the potential for loss of the same acreage of spawning habit for the northern pike. The production from this partial acreage will be an irretrievable, but minimal loss, for the life of the project.

VI. Maps

A map showing the project area, its wetlands (depicted as a dotted line) and proposed fill areas is attached.

Recommended: Charles H. Odegaard — 1/16/85
Regional Director, Midwest Region — Date

Approved: Russell E. Dickenson — 1-30-85
Director, National Park Service — Date


WETLAND/OPEN WATER RESTORATION AREA
WETLAND FILL AREA
DEEP WATER
MARSH
VISITOR CONTACT BUILDING PARKING
UNSURFACED TRAIL WITH VIEW SITES
VISITOR CONTACT BUILDING
INFORMATION AREA
EXCURSION DOCK
DOCK FACILITY
WETLAND FILL AREAS
BOAT DOCK PARKING
COMFORT STATION
PICNIC AREA
DRINKING FOUNTAIN
MARSH
DEEP WATER
DESIGN LOW WATER
DESIGN HIGH WATER
VOYAGEURS N. P.
DEVELOPMENT PLAN

C. COE 404 Permit Issued for the Black Bay Development

DEPARTMENT OF THE ARMY
PERMIT

Referring to written request dated April 9, 1984 for a permit to:

(X) Perform work in or affecting navigable waters of the United States, upon the recommendation of the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 (*33 U.S.C. 403*);

( ) Discharge dredged or fill material into waters of the United States upon the issuance of a permit from the Secretary of the Army acting through the Chief of Engineers pursuant to Section 404 of the Clean Water Act (*33 U.S.C. 1344*);

~~( )~~ Transport dredged material for the purpose of dumping it into ocean waters upon the issuance of a permit from the Secretary of the Army acting through the Chief of Engineers pursuant to Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (*86 Stat. 1052; P.L. 92-532*);

The National Park Service
P.O. Box 50
International Falls, Minnesota 56649

is hereby authorized by the Secretary of the Army:

to

see page 1A

in

Black Bay Narrows, Rainy Lake and adjacent wetlands

at

section 4, T. 70 N., R. 22 W., Koochiching County, 12 miles east of International Falls, Minnesota

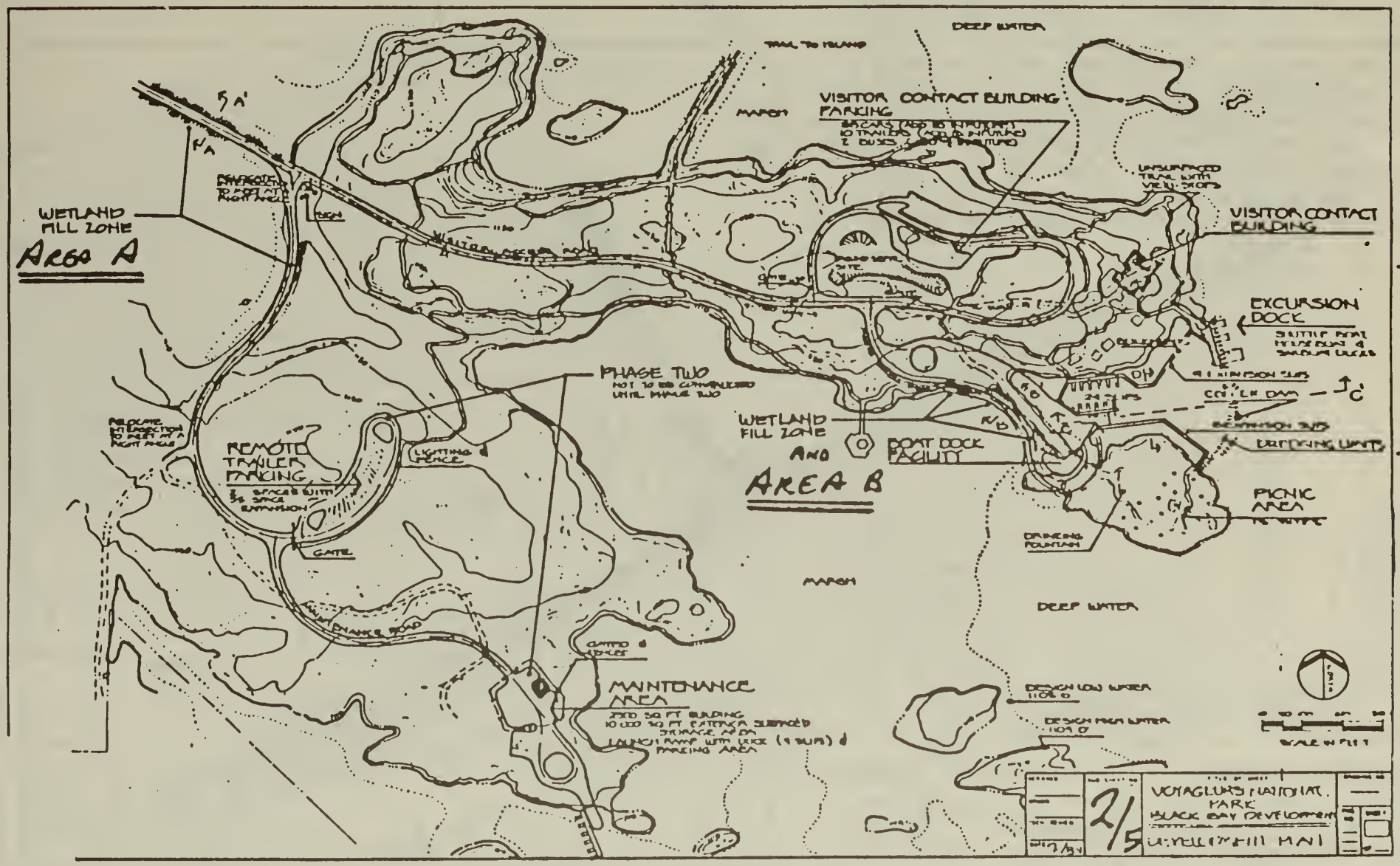
in accordance with the plans and drawings attached hereto which are incorporated in and made a part of this permit (*on drawings, give file number or other definite identification marks.*)

labeled 84-383-38, page 1 of 5 through 5 of 5

subject to the following conditions:

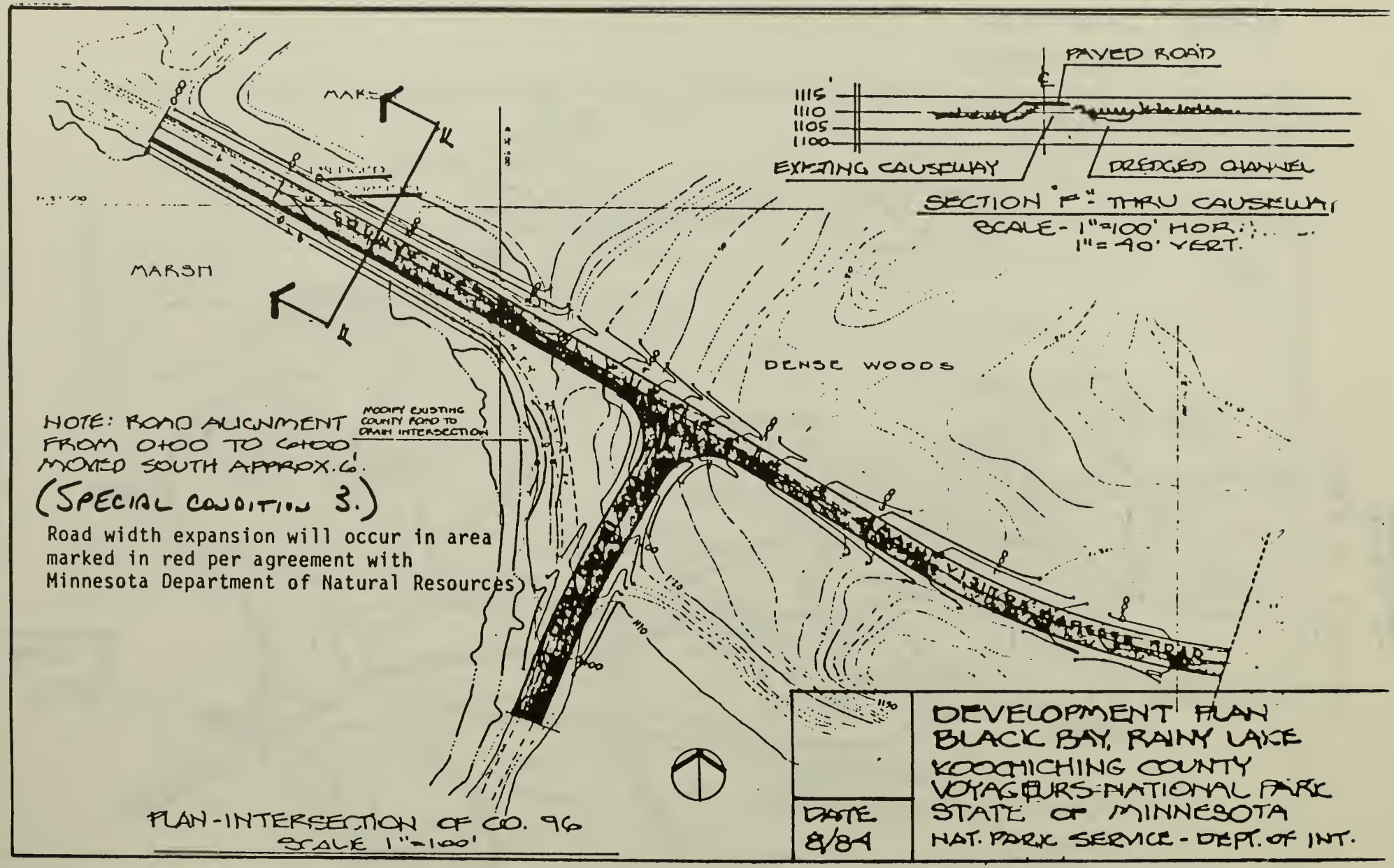
I. General Conditions:

a. That all activities identified and authorized herein shall be consistent with the terms and conditions of this permit; and that any activities not specifically identified and authorized herein shall constitute a violation of the terms and conditions of this permit which may result in the modification, suspension or revocation of this permit, in whole or in part, as set forth more specifically in General Conditions j or k hereto, and in the institution of such legal proceedings as the United States Government may consider appropriate, whether or not this permit has been previously modified, suspended or revoked in whole or in part.

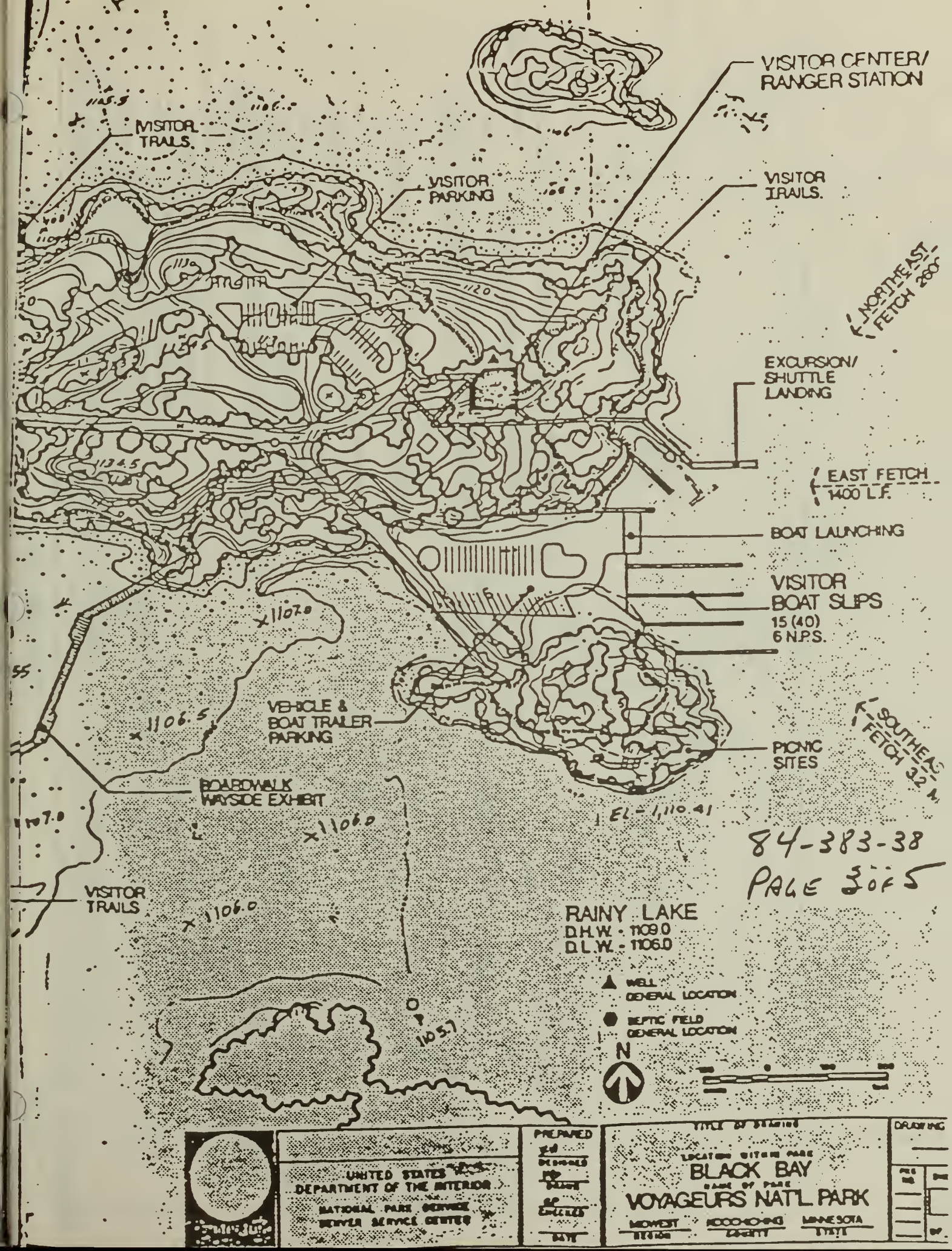


OVERVIEW OF PROJECT AREA

84-203-38 PAGE 1 OF 5



84-383-38 PAGE 2 OF 5



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PAGE 3 OF 5

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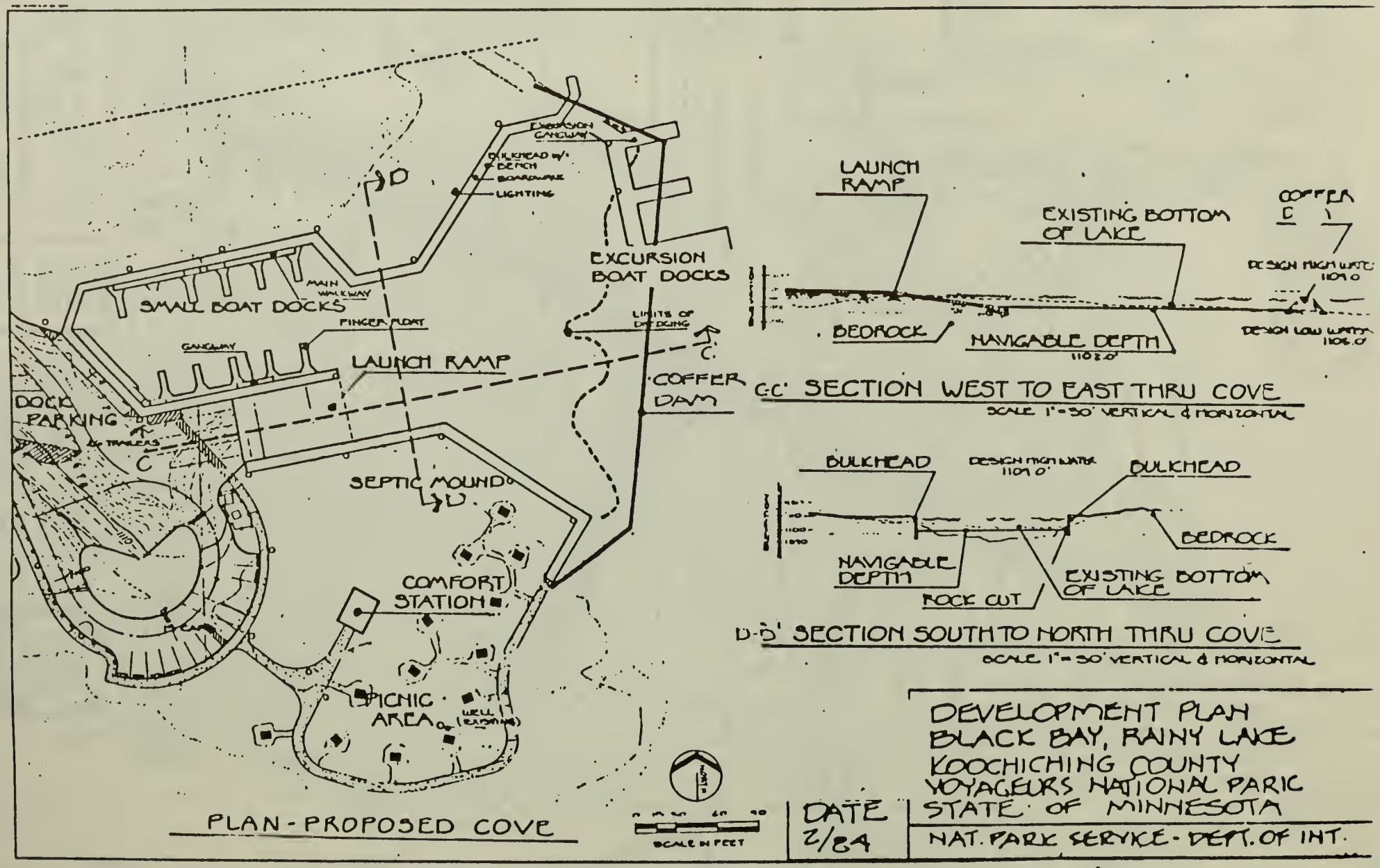
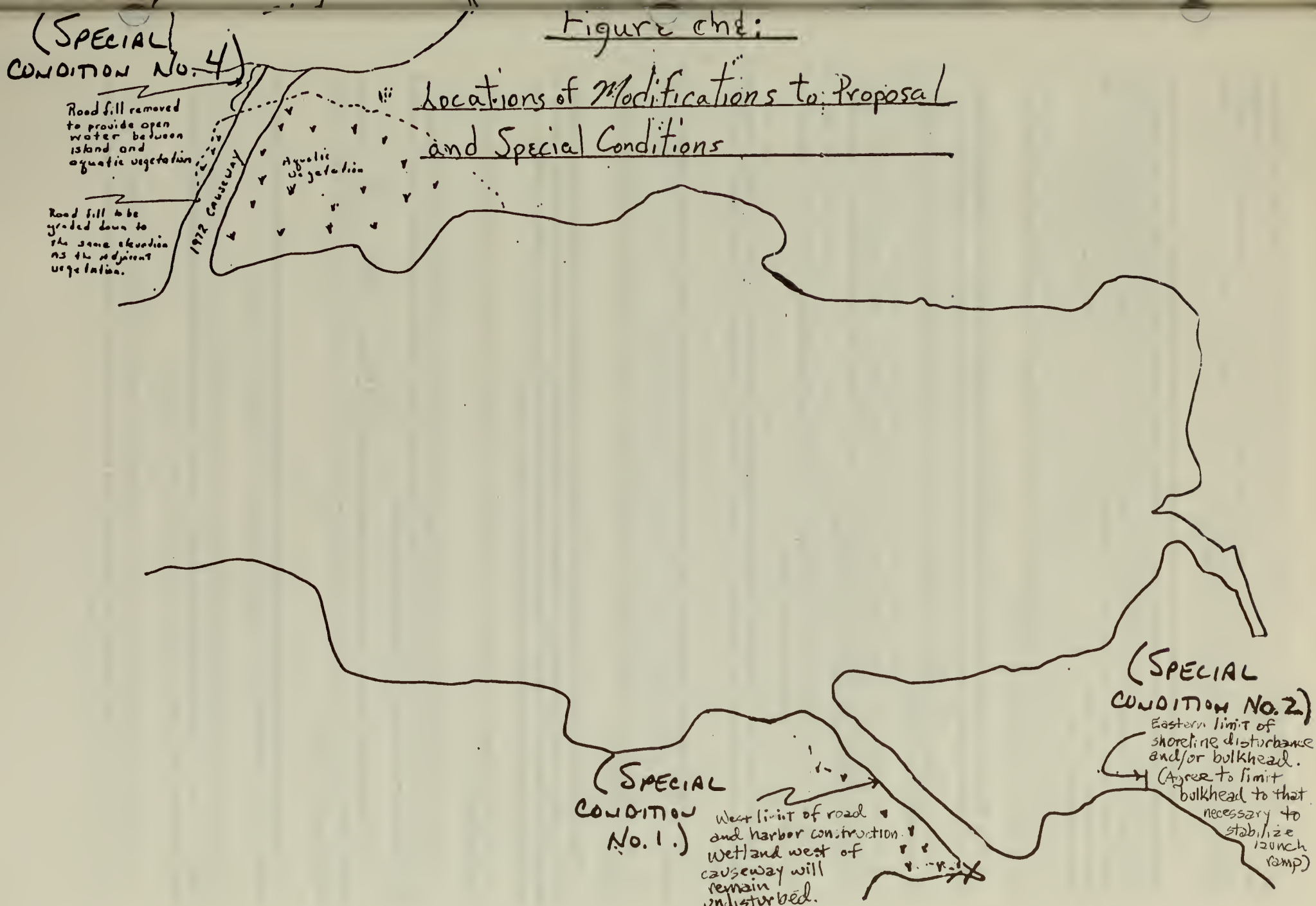


84-383-38 LIMITS OF DREDGING AND

Figure one:

Locations of Modifications to Proposal and Special Conditions



84-383-38

PAGE 5 OF 5

b. That all activities authorized herein shall, if they involve, during their construction or operation, any discharge of pollutants into waters of the United States or ocean waters, be at all times consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pretreatment standards and management practices established pursuant to the Clean Water Act (*33 U.S.C. 1344*), the Marine Protection, Research and Sanctuaries Act of 1972 (*P.L. 92-532, 86 Stat. 1052*), or pursuant to applicable State and local law.

c. That when the activity authorized herein involves a discharge during its construction or operation, or any pollutant (*including dredged or fill material*), into waters of the United States, the authorized activity shall, if applicable water quality standards are revised or modified during the term of this permit, be modified, if necessary, to conform with such revised or modified water quality standards within 6 months of the effective date of any revision or modification of water quality standards, or as directed by an implementation plan contained in such revised or modified standards, or within such longer period of time as the District Engineer, in consultation with the Regional Administrator of the Environmental Protection Agency, may determine to be reasonable under the circumstances.

d. That the discharge will not destroy a threatened or endangered species as identified under the Endangered Species Act, or endanger the critical habitat of such species.

e. That the permittee agrees to make every reasonable effort to prosecute the construction or operation of the work authorized herein in a manner so as to minimize any adverse impact on fish, wildlife, and natural environmental values.

f. That the permittee agrees that he will prosecute the construction or work authorized herein in a manner so as to minimize any degradation of water quality.

g. That the permittee shall allow the District Engineer or his authorized representative(s) or designee(s) to make periodic inspections at any time deemed necessary in order to assure that the activity being performed under authority of this permit is in accordance with the terms and conditions prescribed herein.

h. That the permittee shall maintain the structure or work authorized herein in good condition and in reasonable accordance with the plans and drawings attached hereto.

i. That this permit does not convey any property rights, either in real estate or material, or any exclusive privileges; and that it does not authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations.

j. That this permit does not obviate the requirement to obtain state or local assent required by law for the activity authorized herein.

k. That this permit may be either modified, suspended or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7.

l. That in issuing this permit, the Government has relied on the information and data which the permittee has provided in connection with his permit application. If, subsequent to the issuance of this permit, such information and data prove to be materially false, materially incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Government may, in addition, institute appropriate legal proceedings.

m. That any modification, suspension, or revocation of this permit shall not be the basis for any claim for damages against the United States.

n. That the permittee shall notify the District Engineer at what time the activity authorized herein will be commenced, as far in advance of the time of commencement as the District Engineer may specify, and of any suspension of work, if for a period of more than one week, resumption of work and its completion.

o. That if the activity authorized herein is not completed on or before 31st day of Dec, 19 88, (*three years from the date of issuance of this permit unless otherwise specified*) this permit, if not previously revoked or specifically extended, shall automatically expire.

p. That this permit does not authorize or approve the construction of particular structures, the authorization or approval of which may require authorization by the Congress or other agencies of the Federal Government.

q. That if and when the permittee desires to abandon the activity authorized herein, unless such abandonment is part of a transfer procedure by which the permittee is transferring his interests herein to a third party pursuant to General Condition t hereof, he must restore the area to a condition satisfactory to the District Engineer.

r. That if the recording of this permit is possible under applicable State or local law, the permittee shall take such action as may be necessary to record this permit with the Register of Deeds or other appropriate official charged with the responsibility for maintaining records of title to and interests in real property.

s. That there shall be no unre able interference with navigation by the exist or use of the activity authorized herein.

t. That this permit may not be transferred to a third party without prior written notice to the District Engineer, either by the transferee's written agreement to comply with all terms and conditions of this permit or by the transferree subscribing to this permit in the space provided below and thereby agreeing to comply with all terms and conditions of this permit. In addition, if the permittee transfers the interests authorized herein by conveyance of realty, the deed shall reference this permit and the terms and conditions specified herein and this permit shall be recorded along with the deed with the Register of Deeds or other appropriate official.

u. That if the permittee during prosecution of the work authorized herein, encounters a previously unidentified archeological or other cultural resource within the area subject to Department of the Army jurisdiction that might be eligible for listing in the National Register of Historic Places, he shall immediately notify the district engineer.

II. Special Conditions: *(Here list conditions relating specifically to the proposed structure or work authorized by this permit)*:

1. The wetland west of the causeway shall remain undisturbed by the construction of the harbor, launching ramp and related facilities. All construction associated with the above listed facilities will be shifted to the east to avoid filling in the west wetland (See page 5 of 5).

2. Bulkhead construction and/or fill associated with the launching ramp, parking and turn-around area along the north shore of the island shall extend no further than the point noted on the attached map (See page 5 of 5).

3. The entrance road (C.R.96) alignment will be shifted to the south to prevent road fill in the open water wetland (See page 2 of 5).

4. The lakebed fill shown on the attached map as "1972 causeway" shall be regraded so that the portion of the causeway which traverses the aquatic vegetation is reduced to an equivalent elevation to the adjacent vegetation and soil mat; and that portion of the causeway which traverses open water between the island and the aquatic vegetation will be removed (See page 5 of 5).

5. Refer to the standard conditions attachment.

In addition to general and special conditions, this permit is subject to the following standard conditions, as applicable:

1. All work or discharges to a watercourse resulting from permitted construction activities, particularly hydraulic dredging, must meet applicable Federal, State and local water quality and effluent standards on a continuing basis.

2. Measures must be adopted to prevent potential pollutants from entering the watercourse. Construction materials and debris, including fuels, oil and other liquid substances, will not be stored in the construction area in a manner that would allow them to enter the watercourse as a result of spillage, natural runoff, or flooding.

3. If dredged or excavated material is placed on an upland disposal site (above the ordinary high watermark), the site must be securely diked or contained by some other acceptable method that prevents the return of potentially polluting materials to the watercourse by surface runoff or by leaching. The containment area, whether bulkhead or upland disposal site, must be fully completed prior to placement of any fill material.

4. Upon completion of earthwork operations all exposed slopes, fills and disturbed areas must be given sufficient protection by appropriate means such as landscaping, or planting and maintaining vegetative cover to prevent subsequent erosion.

5. All fill (including riprap), if authorized under this permit, must consist of suitable material free from toxic pollutants in other than trace quantities. In addition, rock or fill material used for activities dependent upon this permit and obtained by excavation must either be obtained from existing quarries or the source borrow site must be identified and approved by the District Engineer.

6. If cultural, archaeological or historical resources are unearthed during activities authorized by this permit, work will immediately halt and the St. Paul District's Regulatory Functions Branch contacted at 612-725-7557 for further instruction.

7. An investigation must be made to identify water intakes or other activities which may be affected by suspended solids and turbidity increases caused by work in the watercourse, and sufficient notice must be given to the owners of affected activities to allow them to prepare for any changes in water quality.

8. A contingency plan must be formulated which would be effective in the event of a spill. This requirement is particularly applicable in operations involving the handling of petroleum products. If a spill of any potential pollutant should occur, it is the responsibility of the permittee to remove such material, to minimize any contamination resulting from this spill, and to immediately notify the U.S. Coast Guard at telephone number 800-424-8802, and the Minnesota Pollution Control Agency at (612) 296-7373.

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The following Special Conditions will be applicable when appropriate:

STRUCTURES IN OR AFFECTING NAVIGABLE WATERS OF THE UNITED STATES:

a. That this permit does not authorize the interference with any existing or proposed Federal project and that the permittee shall not be entitled to compensation for damage or injury to the structures or work authorized herein which may be caused by or result from existing or future operations undertaken by the United States in the public interest.

b. That no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized by this permit.

c. That if the display of lights and signals on any structure or work authorized herein is not otherwise provided for by law, such lights and signals as may be prescribed by the United States Coast Guard shall be installed and maintained by and at the expense of the permittee.

d. That the permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the authorized structure or work, shall, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the waterway to its former conditions. If the permittee fails to comply with the direction of the Secretary of the Army or his authorized representative, the Secretary or his designee may restore the waterway to its former condition, by contract or otherwise, and recover the cost thereof from the permittee.

e. Structures for Small Boats: That permittee hereby recognizes the possibility that the structure permitted herein may be subject to damage by wave wash from passing vessels. The issuance of this permit does not relieve the permittee from taking all proper steps to insure the integrity of the structure permitted herein and the safety of boats moored thereto from damage by wave wash and the permittee shall not hold the United States liable for any such damage.

MAINTENANCE DREDGING:

a. That when the work authorized herein includes periodic maintenance dredging, it may be performed under this permit for N/A years from the date of issuance of this permit (*ten years unless otherwise indicated*);

b. That the permittee will advise the District Engineer in writing at least two weeks before he intends to undertake any maintenance dredging.

DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE UNITED STATES:

a. That the discharge will be carried out in conformity with the goals and objectives of the EPA Guidelines established pursuant to Section 404(b) of the Clean Water Act and published in 40 CFR 230;

b. That the discharge will consist of suitable material free from toxic pollutants in toxic amounts.

c. That the fill created by the discharge will be properly maintained to prevent erosion and other non-point sources of pollution.

DISPOSAL OF DREDGED MATERIAL INTO OCEAN WATERS:

a. That the disposal will be carried out in conformity with the goals, objectives, and requirements of the EPA criteria established pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, published in 40 CFR 220-228.

b. That the permittee shall place a copy of this permit in a conspicuous place in the vessel to be used for the transportation and/or disposal of the dredged material as authorized herein.

This permit shall become effective on the date of the District Engineer's signature.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

PERMITTEE — DATE

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

EDWARD G. HAPP
Colonel, Corps of Engineers
DISTRICT ENGINEER,
U.S. ARMY, CORPS OF ENGINEERS

DATE

Transferee hereby agrees to comply with the terms and conditions of this permit.

TRANSFEREE — DATE

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