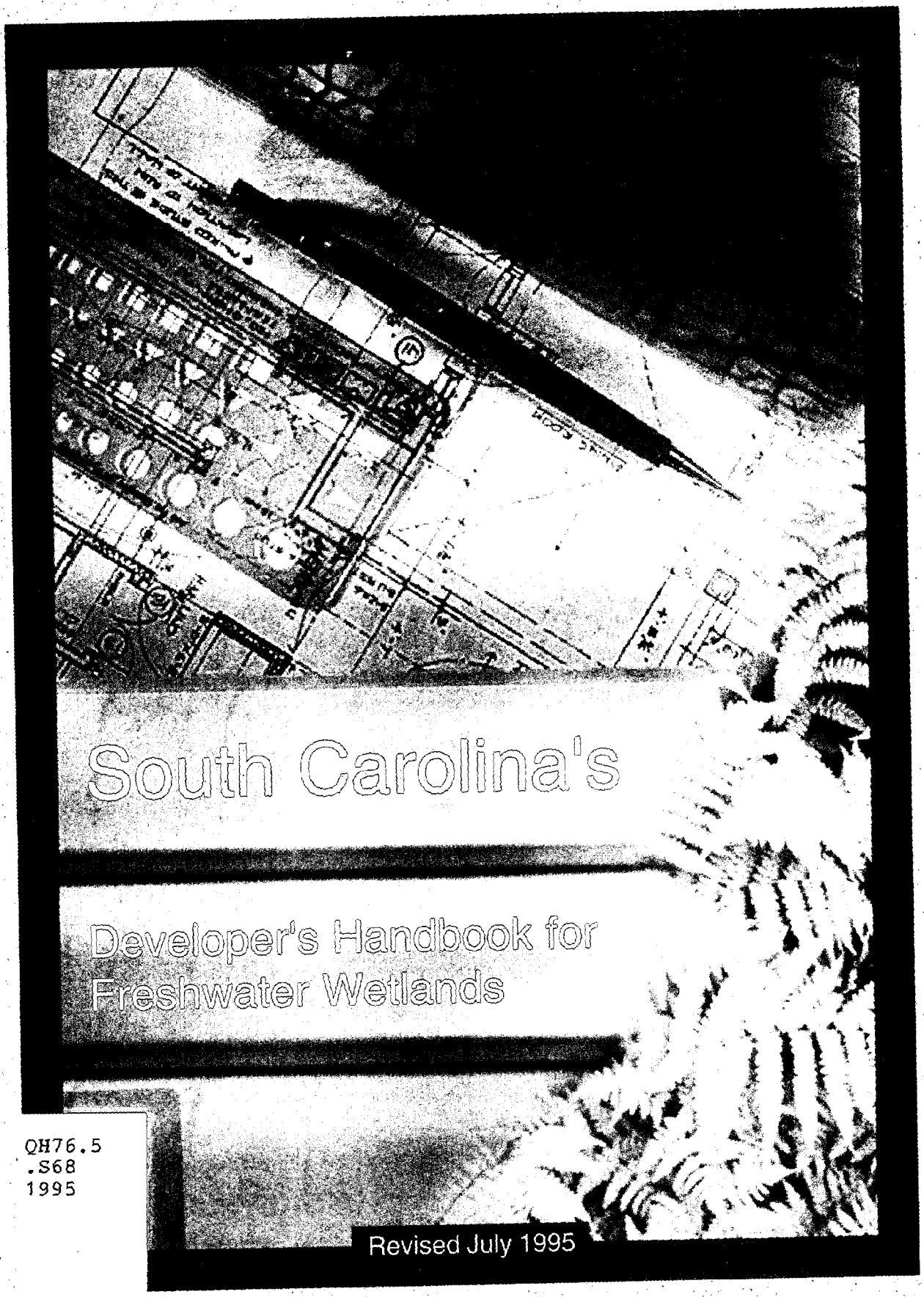

South Carolina's

Developer's Handbook for Freshwater Wetlands

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1995

Revised July 1995

ACKNOWLEDGEMENT

The U.S. Army Corps of Engineers and the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management wish to express sincere appreciation to the federal and state agencies identified in this handbook for their continuing cooperation in providing updated information on their agency's policies and perspectives. The information provided for this "Developer's Handbook" will continue to assist developers in the environmental regulatory process.

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NOTE TO THE READER

As a note to the reader, it is not unlikely that changes to wetland policy will occur in the future. If you have any doubt, please call the contacts listed in this publication for the most current information.

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PREFACE

The requirement to obtain a permit to discharge dredged or fill material in certain "Freshwater Wetlands" in the State of South Carolina has significantly impacted commercial, residential and industrial developers. Accordingly, this handbook is designed to aid developers and others in addressing the following concerns related to the regulation of freshwater wetlands: (1) how to determine if freshwater wetlands are present on a particular tract of land; (2) what permits or approvals are required; (3) which agencies are involved in the process; (4) what are the major policy issues that must be addressed; and (5) what are the steps in obtaining the necessary permits and approvals. This handbook also provides example permit applications and blank application forms, as well as flow charts that diagram the permit process for a variety of situations. **Please note that information regarding the State permitting procedures for activities located in the "critical area" of the coastal zone is not included in this document.** The critical areas (1) coastal waters (2) tidelands, and (3) beach and dune systems are areas where a direct Ocean and Coastal Resource Management permit is required. The specific public notice procedures and regulations are different than those required to alter freshwater wetland systems. Contact the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management for information regarding critical area permits.

The U. S. Army Corps of Engineers, Charleston District and the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management (formerly known as the South Carolina Coastal Council), in cooperation with other state and federal agencies, published the original "Handbook for Freshwater Wetlands" in June 1989. The Handbook was revised in October 1992 due to significant changes in the wetland regulatory arena. These changes included the publishing of new regulations regarding the Corps' Nationwide Permitting program in 1992 which expanded the number of Nationwide Permits (from 26 to 36), the adoption of new or revised regional conditions for some Nationwide Permits, and the denial of the 401 water quality certification by the South Carolina Department of Health and Environmental Control for many Nationwide Permits. Since the October 1992 Handbook revision, several more significant changes have occurred in the regulatory arena. One of the most publicized changes has been the reorganization of the State agencies involved with regulating environmental activities. Under the reorganization, many State agencies were dissolved and merged into either the South Carolina Department of Health and Environmental Control or the Department of Natural Resources. Another change was the publishing of new Department of the Army regulations on August 25, 1993, which broadened the definition of "discharge of dredged material". Because of these changes, the Corps of Engineers and the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management decided to again revise the Handbook to ensure that current information continues to be conveniently available to the public.

The reorganization of the State agencies resulted in the following changes:

- The South Carolina Coastal Council became the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management

- The South Carolina Wildlife Department became the South Carolina Department of Natural Resources

- The regulatory section of the South Carolina Water Resources Commission merged with the South Carolina Department of Health and Environmental Control - Division of Water Quality

- The nonregulatory section of the South Carolina Water Resources Commission merged with the South Carolina Department of Natural Resources

- The regulatory section of the South Carolina Land Resources Conservation Commission merged with the South Carolina Department of Health and Environmental Control - Bureau of Solid Hazardous Waste

- The nonregulatory section of the South Carolina Land Resources Conservation Commission merged with the South Carolina Department of Natural Resources

I. THE EVOLUTION OF WETLAND REGULATION

The involvement of the Corps of Engineers in regulating activities in freshwater wetlands began with the Federal Water Pollution Control Act Amendments of 1972, which authorizes the Secretary of the Army, acting through the Chief of Engineers, to subject discharges of dredged or fill material to a permit requirement. Initially, in implementing the 1972 Act, the Corps limited its authority to those areas that had been traditionally regulated. The Corps' decision to regulate only those areas that it had regulated in the past was challenged in federal court. As a result of this suit the Corps' regulatory authority was expanded to include all waters of the United States (including lakes) and their adjacent wetlands. This new and expanded jurisdiction became effective in July 1975. The most significant and controversial change was the clarification and expansion of the Nationwide Permit Program. *Nationwide Permits are general authorizations issued by the Chief of Engineers that approve certain categories of activities in specific waterbodies that are similar in nature and that have a minor impact on the aquatic resource either singularly or cumulatively.* At present, there are 36 Nationwide Permits that have been issued by the Chief of Engineers, and others are under consideration.

The Corps of Engineers' authority and policies regarding jurisdiction in freshwater wetlands continues to evolve. This evolution reached its current level on November 8, 1985, when a memorandum was sent from the Deputy Director of Civil Works that clarified the Corps of Engineers jurisdiction over isolated wetlands and was included as an attachment to the EPA Memorandum on Clean Water Act Jurisdiction over Isolated Wetlands.

On September 19, 1989, in an unpublished opinion, the United States Court of Appeals for the Fourth Circuit held that the Corps of Engineers could not rely solely upon the November 8, 1985 Memorandum to assert jurisdiction over isolated waters under Section 404 of the Clean Water Act because the guidance was a substantive rule that should have been, but was not, proposed for public comment prior to its adoption by the agencies. (*Tabb Lakes Ltd. v. United States, 30 E.R.C. 1510 (4th Cir 1989)*) On January 25, 1990, the EPA and the Corps jointly issued guidance to the Districts operating within the states of the Fourth Circuit (SC, NC, VA, WV and MD) regarding the Court's decision in the case. This joint guidance states that the Corps and EPA will apply the regulatory definition found at 33 CFR 328.3 to each site. The term "waters of the United States" as found in 33 CFR 328.3 means:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. All interstate waters including interstate wetlands;

3. 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:

   (i) which are or could be used by interstate or foreign travelers for recreational or other purposes; or
   (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
   (iii) which are used or could be used for industrial purpose by industries in interstate commerce;

4. All impoundments of waters otherwise defined as waters of the United States under the definition;

5. Tributaries of waters identified in paragraphs (a)(1) through (4) of this section;

6. The territorial seas;

7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition), are not waters of the United States.

In response to the joint guidance resulting from the Tabb Lakes case, the Charleston District Corps of Engineers composed a Standard Operating Procedure (SOP) that would ensure that the Charleston District effectively implemented the guidance, especially in light of the fact that the Charleston District oversees vast amounts of isolated wetlands (>500,000 acres). The policy of the Charleston District has consistently embodied the presumption of jurisdiction over isolated wetlands. If a landowner challenges jurisdiction and requests an individual review, a jurisdictional analysis will be performed (as the availability of staff allows) which includes the application criteria found above in 33 CFR 328.3 as well as the topics listed below.

a. Pollution abatement by the filtration and/or trapping of nutrients and other pollutants before they reach surface tributary systems and, thus, other waters of the United States.

b. Storm and flood water storage.

c. Ground water recharge and aquifer interconnection.

d. The relative importance of isolated wetlands to the overall hydrological cycle.

e. The use or potential use of isolated wetlands by numerous game and non-game wildlife species and the attendant hunting, fishing, birdwatching and other recreational activities associated therewith.

f. The use or potential use of an area for the harvesting or management of indigenous plants and/or trees or other use in industry.

The latest decision (at the time of this writing) regarding jurisdiction over isolated wetlands came out of the United States Court of Appeals for the Seventh Circuit (*Hoffman Homes, Inc. V. EPA, 999 F.2d 256 (7th Cir. 1993)*), and involved the EPA's interpretation of the language contained in 33 CFR 328.3. The Seventh Circuit agreed with the EPA that a potential or minimal effect on interstate commerce was a sufficient basis for jurisdiction, but disagreed that sufficient evidence had been presented to support such a conclusion in that case.

In the regulatory arena, the most significant recent change was the publication of new regulations on August 25, 1993. These regulations contained a modification to the definition of *discharge of dredged material* [33 CFR 323.2(d)(1)]. This change was generated by the settlement of a lawsuit brought by the North Carolina Wildlife Federation and the National Wildlife Federation (*North Carolina Wildlife Federation v. Tulloch*, 837 F.Supp. 1344 (E.D.N.C. 1992)) involving the scope of activities regulated by Section 404 of the Clean Water Act. In accordance with the settlement agreement, the Corps and the EPA issued new regulations to clarify that mechanical landclearing, ditching, channelization, and other excavation activities involve discharges of dredged material when performed in waters of the United States, and that these activities would be regulated under Section 404 of the Clean Water Act when they have or would have the effect of destroying or degrading water of the United States, including wetlands. The Corps and EPA also incorporated into the regulations the substantive provisions of Corps Regulatory Guidance Letter (RGL) 90-8 to clarify the circumstances under which the placement of pilings has the effect of "fill material" and is subject to regulation under Section 404. The agencies stated that the proposal would not affect, in any manner, the existing statutory exemptions for normal farming, ranching, and silviculture activities in Section 404(f)(1). In addition to the changes made in accordance with the settlement agreement, the Corps and EPA incorporated into the regulations the substantive provisions of Corps RGL 90-7 to clarify that prior converted croplands are not waters of the United States for purposes of the Clean Water Act, and EPA proposed conforming changes to the definitions of "waters of the United States" for all other Clean Water Act program regulations contained in 40 CFR parts 110, 112, 116, 117, 122, and 401 to provide consistent definitions in all Clean Water Act program regulations. Overall, these changes were proposed in order to promote national consistency, more clearly notify the public of regulatory requirements, ensure that the Section 404 regulatory program is more equitable to the regulated public, enhance the protection of waters of the United States,

and clarify which areas in agriculture'crop production would not be regulated as waters of the United States.

As set forth in the 1993 regulations (33 CFR 323.2), the definition of *discharge of dredged material means any addition of dredged material into, including any redeposit of dredged material within, the waters of the United States. The term includes, but is not limited to, the following:*

> *(i) the addition of dredged material to a specified discharge site located in waters of the United States;*
> *(ii) the runoff or overflow from a contained land or water disposal area; and*
> *(iii) any addition, including any redeposit, of dredged material, including excavated material, into waters of the United States that is incidental to any activity, including mechanized landclearing, ditching, channelization, or other excavation.*

The day after the publication of these regulations, the Clinton administration proposed a comprehensive package of improvements to the Federal wetlands' program that reflected a new broad-based consensus among federal agencies. The title of this plan was, "Protecting America's Wetlands: A Fair, Flexible, and Effective Approach."

When considering the importance of the regulation of freshwater wetlands in the State of South Carolina, developers (and others) must realize that this State contains approximately 5 million acres of wetlands, of which approximately 3½ to 4 million acres are considered "Freshwater Wetlands". This means that approximately 20% of the surface area of the State of South Carolina is considered to be "Freshwater Wetlands". Obviously, in planning an industrial or residential/commercial development, the extent and location of jurisdictional wetlands should be considered early in the planning process. Changes to regulations continue to occur. Therefore, it is strongly suggested that developers meet with one or more of the permitting and certifying agencies to discuss any planned development prior to investing time and money in any proposal.

II. PERMIT OVERVIEW

The Army Corps of Engineers is the lead agency for wetland permits and is responsible for determining if an area is a wetland. Since in many instances a permit and/or certification will also be required from one or more State agencies, agreements have been implemented between the Corps and the South Carolina Department of Health and Environmental Control, which allow for joint processing of individual permit applicants. An application need only be submitted to the Corps.

Below are the agencies involved in the permitting process for activities in waters of the United States and an indication of the types of permits and certifications they issue.

- Permits

  Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act Permit - issued by the Army Corps of Engineers

  Construction in Navigable Waters Permit - issued by South Carolina Department of Health and Environmental Control - Division of Water Quality

  Mining Permit - issued by South Carolina Department of Health and Environmental Control - Bureau of Solid and Hazardous Waste

  Nonpoint Source Discharge Elimination System Permit - issued by South Carolina Department of Health and Environmental Control - Division of Water Quality

- Certifications

  401 Water Quality Certification - issued by the South Carolina Department of Health and Environmental Control - Environmental Quality Control for all federal actions.

  Coastal Zone Consistency Determination - issued by the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management for all federal licenses, permits, or activities in the coastal zone.

A permit is required for certain listed activities (listed below and in Section V) which occur in freshwater wetland areas. Permits are necessary to manage growth in sensitive areas and to permit development activity while trying to preserve valuable ecological resources.

The following is a brief overview of the permits and certifications that will be needed for different types of activities in wetlands. This should assist in determining at a glance the different agencies that will be involved in the process.

A. FILLING WATERS OF THE UNITED STATES INCLUDING WETLANDS (FOR ANY PURPOSE)

- Corps of Engineers - *permit required pursuant to Section 404 of the Clean Water Act*
- S.C. Department of Health and Environmental Control (Environmental Quality Control or Office of Ocean and Coastal Resource Management, depending on the location) - *certification required*

B. DREDGING IN NAVIGABLE WATERS

- Corps of Engineers - *permit required pursuant to Section 10 of the Rivers and Harbors Act of 1899*
- S.C. Department of Health and Environmental Control (Environmental Quality Control or Office of Ocean and Coastal Resource Management, depending on the location) - *permit and certification required*

C. DREDGING AND DRAINING WETLANDS

- Corps of Engineers - *permit required pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act*
- S.C. Department of Health and Environmental Control (Environmental Quality Control or Office of Ocean and Coastal Resource Management, depending on the location) - *certification required*

D. MINING IN FRESHWATER WETLANDS

- S.C. Department of Health and Environmental Control - Bureau of Solid Hazardous Waste- *permit required*
- Corps of Engineers - *permit required pursuant to Section 404 of the Clean Water Act*
- S.C. Department of Health and Environmental Control (Environmental Quality Control or Office of Ocean and Coastal Resource Management, depending on the location) - *permit and certification required*

E. CREATING IMPOUNDMENTS IN WETLANDS

- Corps of Engineers - *permit required pursuant to Section 404 of the Clean Water Act*
- S.C. Department of Health and Environmental Control (Environmental Quality Control or Office of Ocean and Coastal Resource Management, depending on the location) - *certification required*

F. MANAGING STORM WATER RUNOFF IN WETLANDS

- S.C. Department of Health and Environmental Control (Environmental Quality Control or Office of Ocean and Coastal Resource Management, depending on the location) - *permit required*

G. CONSTRUCTING DOCKS, BULKHEADS, AND BOAT RAMPS

- Corps of Engineers - *permit required pursuant to Section 10 of the Rivers and Harbors act of 1899 and Section 404 of the Clean Water Act*
- S.C. Department of Health and Environmental Control (Environmental Quality Control or Office of Ocean and Coastal Resource Management, depending on the location) - *permit and certification required*

H. LANDCLEARING ACTIVITIES IN WETLANDS

- Corps of Engineers - *permit required pursuant to Section 404 of the Clean Water Act*
- S.C. Department of Health and Environmental Control (Environmental Quality Control or Office of Ocean and Coastal Resource Management, depending on the location) - *permit and certification required*

AGENCY LISTING

AGENCY NAME	OFFICE	ADDRESS	PHONE
S.C. Institute of Archaeology and Anthropology, USC	Underwater Archaeology Division	1321 Pendleton Street Columbia, S.C. 29208	803-734-0566
S.C. Department of Archives and History	State Historic Preservation Office	Post Office Box 11669 Columbia, S.C. 29211	803-734-8577
S.C. Department of Health and Environmental Control	Mining and Reclamation Permitting	2600 Bull Street Columbia, S.C. 29201	803-896-4261
S.C. Department of Health and Environmental Control	Office of Environmental Quality Control - Water Pollution Control	2600 Bull Street Columbia, S.C. 29201	803-734-5300
S.C. Department of Health and Environmental Control	Office of Ocean and Coastal Resource Management	4130 Faber Place Suite 300 Charleston, S.C. 29405	803-744-5838
S.C. Department of Natural Resources	Environmental Affairs Coordinator	Post Office Box 12559 Charleston, S.C. 29422-2559	803-762-5027
U.S. Army Corps of Engineers	Charleston District Regulatory Branch	Post Office Box 919 Charleston, S.C. 29402-0919	803-727-4330
U.S. Environmental Protection Agency	Region IV, Ecological Review Branch	345 Courtland Street, NE Atlanta, G.A. 30365	404-347-4015
U.S. Fish and Wildlife Service	Ecological Services	Post Office Box 12559 Charleston, S.C. 29422-2559	803-727-4707
U.S. National Marine Fisheries Service	Habitat Conservation Division	Post Office Box 12607 Charleston, S.C. 29412	803-762-8574

III. IDENTIFYING FRESHWATER WETLANDS

A. PURPOSE

The purpose of this section of the Handbook is to provide information for landowners, developers, and others to assist in determining whether or not wetlands exist on a particular tract of land and whether they may need to contact the Corps of Engineers concerning permit requirements. Natural vegetation is the most immediately recognizable factor in evaluating the presence of wetland situations, but consideration must also be given to soil conditions and hydrology.

It is important to note that the plant life of a given area should be looked at as a COMMUNITY and that a PREVALENCE of the listed species must be present in order to qualify an area as exhibiting wetland vegetation. A few of these species existing in a given area does not constitute a wetland.

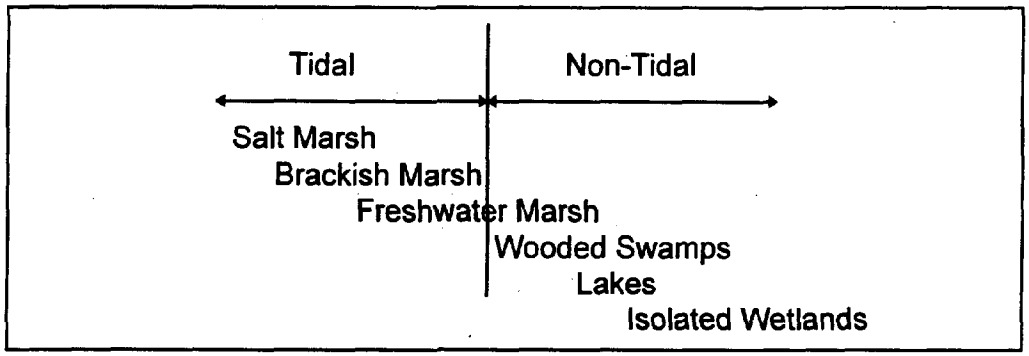
Wetland plants are referred to as "hydrophytic" (literally, "water loving") species. The following excerpt which defines and describes this type of plant life comes from a paper prepared by Dr. Dana R. Sanders, Sr. of the Corps of Engineers' Waterways Experiment Station (a major Corps research facility) entitled "Multiparameter Approach for the Identification and Delineation of Wetlands." Other portions of this section of the Handbook contain paraphrased excerpts from this publication. By way of explanation, the terms "aerobic" and "anaerobic" used below refer to the presence (aerobic) or absence (anaerobic) of oxygen.

> "Plant species occurring in wetlands have morphological, physiological, and/or reproductive adaptations that allow them to grow, persist and reproduce in areas that are periodically inundated or have saturated soil conditions. Nonwetland plants lack adaptations for occurrence in such areas.
>
> Plant species vary in their tolerance to anaerobic soil conditions. Some species (red maple, for example) have broad tolerance and occur over a broad range of soil moisture conditions. Other species such as buttonbush have a narrow range of tolerance. Some species (e.g., bald cypress, smooth cordgrass) are adapted for occurrence in areas that are nearly permanently inundated, while other species are adapted for occurrence in areas that are inundated or have saturated soils for relatively short periods during the growing season. Nevertheless, species of both types are poorly adapted and lack a competitive advantage for survival in areas having nearly continuous periods of aerobic soil conditions associated with nonwetland soils. Many hydrophytic species do not occur in nonwetland areas.
>
> Hydrophytic species sharing similar tolerances to anaerobic soil conditions often cohabit areas having such conditions. In these

cases, it is possible to recognize these species groups as plant communities or species associations. Within a given geographic region, the same plant community type or species association will occur wherever similar environmental conditions exist. Thus it is possible to map wetland areas based on the distribution of hydrophytic communities or species associations."

It is these types of associations that are discussed in the following sections which describe the various wetland types found in South Carolina.

There are many different kinds of wetlands in South Carolina, and almost as many systems to classify them. The most widely used system is the one developed by the National Wetland Inventory (NWI) of the Department of Interior. The Charleston District of the Corps of Engineers has made significant contributions to expedite development of NWI Maps for the State of South Carolina. (For information on the availability of these maps for a given area contact the Land Resources Division of the South Carolina Department of Natural Resources at 803-734-9100). However, this system may be too complex for the purposes of this booklet; therefore, a more simple approach is used here. The figure below shows the general types of wetlands described herein and their relationship to tidal influence.



Estimates for the amount of wetlands contained in South Carolina show that perhaps as much as 5 million acres qualify as wetlands. Some of the figures are given below and are based on a 1975 survey of tidal wetlands along the coast performed by the South Carolina Wildlife and Marine Resources Department (SCW&MRD) (Tiner, 1975), and additional data.

TIDAL WETLANDS		NON-TIDAL WETLANDS	
Salt marsh	334,500 acres	Freshwater marsh	~25,000 acres
Brackish marsh	35,000 acres	Wooded Swamp	3,000,000 acres
Freshwater marsh	65,000 acres	Lakes (>10 acres)	492,000 acres
Wooded swamp	~ 2,000 acres	Isolated wetlands (Carolina Bays, etc.)	1,000,000 acres

Since the purpose of this handbook is to address predominately freshwater systems, no further discussions of tidal wetlands will occur.

B. DEFINITION

The following is the definition of wetlands as it appears in the Corps of Engineers' Regulations at 33 CFR 328.3(b).

> *The term "wetlands" means 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.*

C. FRESHWATER WETLAND CHARACTERISTICS

1. Wooded Swamps

A distinction can be made between "scrub-shrub" and forested wetlands, where the "scrub-shrub" type is generally characterized by a dominance of woody vegetation less than about 20 feet in height. This may result from stunting caused by environmental conditions or it could simply be a successional stage in the maturation of a particular site (for instance, following recent logging or other disturbance). These swamp areas adjacent to rivers and streams are dominated by such species as black willow (*Salix nigra*), alders (*Alnus spp.*), and buttonbush (*Cephalanthus occidentalis*).

Forested wetlands comprise the majority of the total wetlands found in the State of South Carolina. They adjoin major rivers and their tributaries from the coast to the piedmont and even into the foothills of the Blue Ridge mountains in the upper reaches of the State. These floodplain areas become "swamps" because of the influence of overbank flooding from the streams that they line.

While these types of wetlands exhibit an extensive diversity of plants, there are a number of species that are fairly characteristic. To describe these, an effort must be made to explain that the swamp habitat can be divided into a number of different zones, each with its own characteristic vegetation community, and based on the frequency and duration of flooding. While much of the research in this field is currently directed at describing five or six distinct zones, for the sake of simplicity, only three will be discussed -- low, middle and high.

The lower zone (and thus the most often and longest flooded) is the area that people normally think of when they think of a swamp. The dominant trees in such areas are cypress (*Taxodium distichum*) and swamp tupelo (*Nyssa aquatica*), however, Carolina ash (*Fraxinus caroliniana*) and planer tree (*Planera aquatica*) survive very well in these areas.

The next higher zone (or the "middle" zone) usually exhibits denser ground cover and the dominance of tree species gradually changes to such things as laurel oak (*Quercus laurifolia*), swamp chestnut oak (*Quercus michauxii*), water hickory (*Carya aquatica*), and American elm (*Ulmus americana*). Shrubs common in this zone include sweetspire (*Itea virginica*), titi (*Cyrilla racemiflora*), swamp dogwood (*Cornus foemina*), and hankberry (*Ilex galbra*). Also present are royal fern (*Osmunda regalis*) lizard's tail (*Saururus cernuus*), false nettle (*Boehmeria cylindrica*), and sedges (*Carex spp. and Cyperus spp.*).

The highest zone (also commonly known as a "transitional zone" because of the gradual transition to upland, or nonwetland areas) commonly contain such trees as hackberry (*Celtis laevigata*), various bay trees (*Persea, Gordonia, Magnolia*), red maple (*Acer rubrum*), ironwood (*Carpinus caroliniana*), and an occasional loblolly pine (*Pinus taeda*). Ground cover and shrubs may include sweet pepperbush (*Clethera alnifolia*), dwarf palmetto (*Sabal minor*), arrow wood (*Viburnum dentatum*), swamp azalea (*Rhododendron canescens*), southern lady fern (*Athyrium asplenoides*) and wax myrtle (*Myrica cerifera*).

2. Lakes or Ponds

Lakes are easily recognizable as wetlands since they are comprised of bodies of usually permanent standing water, often with a fringe of vegetation around the border (e.g., marsh or swamp). Much of the vegetation is similar to that discussed in the earlier sections on freshwater swamps.

Lakes or ponds may be natural bodies of standing water, or may be created by impounding a stream or river with a dam or embankment or by excavation. Lakes Marion, Murray, Greenwood and Wateree are excellent examples of this impoundment type. The overwhelming majority of lakes in South Carolina are man-made, ranging from small farm ponds to the major reservoirs mentioned above. There are about 17 lakes in South Carolina which exceed 1,000 acres in surface area; and at the time of a 1974 survey by the South Carolina Water Resources Commission, there were approximately 1,400 lakes greater than 10 acres in surface area. Many more have obviously been created since that time and there are many thousands in the less than 10 acre category.

3. Isolated Wetlands

Isolated wetlands cover the widest variety of wetland types and may be found in South Carolina from the mountains to the sea. *An isolated wetland is simply a wetland area that is not part of a surface tributary system.* In other words, there are no streams flowing into or out of them. They are simply landforms, surrounded by nonwetland areas, and may vary as widely in size as they do in type. Old "oxbow lakes," which were once part of the course of a river but have been cut off from the stream and are now surrounded by high ground, are one type of isolated wetland. Carolina Bays, which are unique to this part of the world and reach their highest concentrations around the South Carolina - North Carolina border are a significant and interesting form of isolated wetlands (though some may be adjacent to and directly associated with river swamps and are not truly isolated).

Pocosins, which are intimately associated with Carolina Bays, are broad flat areas which have become peatbogs over the centuries and are another unique coastal plain wetland. Many other types of potholes and sinkholes exist which collect surface runoff or are low enough to intersect the local ground water table and have thus become wetland areas. Along the barrier islands and sea islands, as well as the adjoining mainland area, are topographic features which are essentially the remains of ancient sand dunes left over from the transgressions of the ocean many thousands of years ago which have become weathered and vegetated. Between many of these old dunes are "swales" or "troughs" which collect water and are wet for long enough periods during the year for wetland ecosystems to become established and to survive.

Plants that are commonly associated with Carolina Bays and pocosins include pitcher plants (*Sarracenia spp.*), sphagnum moss (*Sphagnum spp.*), fetterbush (*Lyonia spp.*), zenobia (*Zenobia pulverulenta*), pond pine (*Pinus serotina*) and various bay trees (*Persea, Gordonia, Magnolia*).

4. Soils

The U.S. Department of Agriculture - Natural Resources Conservation Service (formerly known as the Soil Conservation Service), has developed a list of soil types (or soil "series", as they are more properly known) in the State of South Carolina which are considered to be "hydric soils". They have also published Soil Surveys for virtually all of the counties of South Carolina. These Soil Survey books contain aerial photographs covering the entire county (or in some cases, more than one county) with an overlaid mapping of the soils in the area. The Hydric Soil list can be used in conjunction with the Soil Surveys (see the local Natural Resources Conservation Service office for more information in obtaining the Hydric Soil list and the Soil Survey for a specific area) as a planning tool to get an idea of where wetlands are likely to occur. However, this is not definitive and should NOT be used solely to delineate jurisdictional wetlands on the basis of soil mapping. It is intended to aid in assessing the potential of an area for such a determination by providing insight into one of the physical parameters of the area. Vegetation and hydrology must also be considered, and there are nuances of soil series identification and mapping that could lead to incorrect conclusions about the presence or absence of wetlands on a given tract.

The importance of soils information is highlighted by recognizing that a key provision of the Corps of Engineers' wetland definition is *"...a prevalence of vegetation typically adapted for life in SATURATED SOIL CONDITIONS..."* (emphasis added). What then is a "hydric soil" and what are the characteristics that indicate the presence of wetland conditions?

The official Natural Resource Conservation Service definition of a hydric soil is:

> *"A hydric soil is a soil that in its undrained condition is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation."*

Note that the definition of hydric soils refers to the vegetation just as the wetland definition refers to soil conditions. The two are inexorably linked.

5. Hydrology

Hydrology is the tie that binds all wetlands together as wetland areas, but is the most elusive to accurately quantify. However, the presence of water is directly reflected in the hydric soils and the plant communities which occupy wetlands and the hydrology can be largely inferred as a result, even in those instances where no standing water is present at a particular time. The frequency, timing and duration of these hydrological conditions vary widely from one wetland type to another.

Some of the indicators of wetland hydrology include:

- Recorded information (e.g., gauging station data, flood predictions, and historic data).
- Evidence of water movement through an area (e.g., drainage patterns, absence of leaf litter, scouring around roots, and debris deposited in or along the drainage pattern).
- Drift lines (debris accumulated at the furthermost reach of the rising water).
- Sediment deposits on plants and other objects.
- Encrusted detritus in the litter layer.
- Watermarks.
- Visual observation of inundation or soil saturation.

Hydrology may take the form of tidal fluctuations (in coastal situations), freshets and floods along rivers and streams, and rainwater catchment or groundwater discharge in isolated areas. It is important to note that the significance of inundation or saturation to the plant community is generally considered to be during the growing season (regarded as from the last frost of the winter to the first frost the following fall) for any given locality. During the remainder of the year the plants are considered to be essentially dormant and the stresses caused by these wet conditions have little impact on their survival and reproduction.

D. DELINEATIONS

1. How Wetland Delineations are Obtained/Accomplished

Recently, a Memorandum of Agreement was signed between the Corps, U.S. Department of Agriculture - Natural Resources Conservation Service, the U.S. Fish and Wildlife Service, and the Environmental Protection Agency which appoints the Natural Resources Conservation Service as the lead agency for delineation of wetlands on "agricultural lands". If a property may qualify for this service, or if the applicant is a U.S. Department of Agriculture program participant (even if the land in question is not in agricultural use), contact the

local office of the U.S. Department of Agriculture - Natural Resources Conservation Service for assistance.

In the past the Corps has made every effort to provide wetlands data to the landowner or agent in a timely fashion. However, the pace of development in the State has now surpassed the Corps' resources to provide such services. In consideration of these factors, Corps delineation services must now be provided through two options. First, the developer or agent may submit a request to be placed on a waiting list and these delineations will be worked on as time and staff allow. It is anticipated that responses to these requests will take much longer than the average 60 days now experienced. The second option is that a qualified consultant may be hired by the landowner to perform the field evaluation for review and verification by the Corps. This is a procedure that many are already familiar with since the Charleston District has been doing this for some time on larger projects. While this was once the norm for projects of several hundred acres, sites as small as five or 10 acres are now candidates for this category.

The hiring of a consultant, in most cases, will be inappropriate for small, private sites, but areas slated for commercial, residential or industrial development (even if smaller than the five to 10 acre threshold) should meet this criteria. If time is not an important factor, the waiting list addressed above may be the appropriate measure.

Included in Appendix A, page 1 is a copy of a "Request for Wetlands Determination" form. Even if the wetlands are to be independently evaluated, this form should be forwarded to the Corps so that a Corps field representative may be assigned who will be responsible for coordination with the consultant and verification of the wetland boundaries established. Also available upon request is a list of consultants who have indicated availability for this type of work. (The Corps of Engineers is working on a Wetland Delineator Certification Program, but it is not yet in place at the time of the updating of this handbook.)

Wetlands delineated by consultants should be mapped and provided to the Corps office for verification of accuracy. Two types of verifications will be provided -- one is an "approximation" which is provided when the delineation is not surveyed; the second is an "accurate" delineation which involves the submittal of a plat by a Registered Land Surveyor showing all necessary dimensions, bearings and distances for both the overall tract in question and the boundaries of all wetlands contained within the tract. Approximations may be appropriate for projects like the construction of a pond where a very high degree of accuracy is not needed. Survey information is needed for circumstances where one needs to know accurately the location, size, etc., for all wetlands for development planning and permitting requirements (e.g., commercial, residential or other high intensity development activities).

2. Tools Available to the Landowner That Will Assist in Wetland Delineations

If a landowner or developer wishes to make a preliminary determination as to whether wetlands exist on a particular parcel of land, there are some tools available that will assist in making a preliminary determination. These tools are U. S. Geological Survey Quadrangle maps, soil survey maps, U.S. Fish & Wildlife Service National Wetland Inventory maps, and aerial photography.

a. U. S. Geological Survey Quadrangle Maps

U. S. Geological Survey quadrangle maps are readily available sources of information and can be obtained from a number of suppliers throughout the State. Although not ideally suited to wetland determination due to their scale (1:24,000), the maps are easy to obtain and can be used for many purposes, including preliminary wetland evaluation for large sites.

b. Soil Survey Maps

The U.S. Department of Agriculture - Natural Resources Conservation Service has published Soil Survey Booklets for virtually each county in the State. These booklets contain copies of aerial photographs with soils information annotated on the photograph. The information gained from the soils booklet, in conjunction with an on-site inspection, will assist in determining if wetlands are present and aid in the planning of the project, so that wetlands can be avoided or encroachments minimized.

c. National Wetland Inventory Maps

The U.S. Fish & Wildlife Service has been in the process of mapping wetlands on a nationwide basis for the past several years. The majority of the work has been completed for the coastal zone of South Carolina. Draft maps are currently available and may be ordered by U.S. Geological Survey Quadrangle sheet designation by calling 1-800-USA-MAPS. Copies may also be obtained from the Land Resources Division of the South Carolina Department of Natural Resources (803-734-9100).

These "Wetland Inventory Maps" are U.S. Geological Survey Quadrangle maps on which the U.S. Fish & Wildlife Service has delineated their categories of wetlands in accordance with their published procedures. These maps are valuable as an early planning tool for conceptually developing a plan that can either avoid wetlands, or at least minimize project encroachments into these valuable natural resource areas.

IV. THE MAJOR PERMITS AND AUTHORITIES

This section identifies the federal and state agencies that may be involved in permitting or certifying a project located in freshwater wetlands. Each agency has provided information relative to their authorities in regulating freshwater wetlands.

A. U. S. ARMY CORPS OF ENGINEERS

The U. S. Army Corps of Engineers has been involved in regulating activities in the nation's waters since 1899. The Corps' authority was then and continues to be Section 10 of the Rivers and Harbors Act of 1899. The paragraphs that follow were extracted from Corps of Engineers Regulations and describe the Corps' statutory authorities and how these authorities relate to freshwater areas.

> Section 10 of the Rivers and Harbors Act approved March 3, 1899, (33 U.S.C. 403) (hereinafter referred to as section 10), prohibits the unauthorized obstructions or alteration of any navigable water of the United States. ("Navigable waters of the United States" is defined below.) The construction of any structure in or over any navigable water of the United States, the excavating from or depositing of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters is unlawful unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army. The authority for authorizing work under this law has been delegated to District Engineers. The instrument of authorization is designated a permit.

Since this handbook deals specifically with freshwater areas, Section 10 of the Rivers and Harbors Act of 1899 will usually not be applicable due to the fact that freshwater areas are generally not considered "navigable waters of the United States". Such areas are normally subject to Section 404 of the Clean Water Act.

> Section 404 of the Clean Water Act (33 U.S.C. 1344) (hereinafter referred to as section 404) authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits, after notice and opportunity for public hearing for the discharge of dredged or fill material into the waters of the United States at specified disposal sites. (See 33 CFR Part 323.) The selection and use of disposal sites will be in accordance with guidelines developed by the Administrator of the Environmental Protection Agency in conjunction with the Secretary of the Army and published in 40 CFR Part 230. If these guidelines prohibit the selection or use of a disposal site, the Chief of Engineers shall consider the economic impact on navigation and anchorage of

> such a prohibition in reaching his decision. Furthermore, the Administrator of the Environmental Protection Agency can deny, prohibit, restrict or withdraw the use of any defined area as a disposal site whenever he determines, after notice and opportunity for public hearing and after consultation with the Secretary of the Army, that the discharge of such materials into such areas will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas, wildlife, or recreational areas.

Since the laws cited above make reference to "waters of the United States" and "navigable waters of the United States", these two terms are defined below.

> *The definition of "waters of the United States" is found in Section I of this handbook.*

> *The term "navigable waters of the United States" means those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce.*

Generally, any deposit of dredged or fill material in wetlands will require a permit from the Corps of Engineers due to Section 404 of the Clean Water Act.

There are several types of permits (e.g., Individual Permits, General Permits, or Nationwide Permits) that apply to freshwater areas. The type of permit applied for will depend on many different factors. General Permits have been issued for numerous activities in South Carolina. In order to qualify for authorization under one of these General Permits, the project must be located in an area that the Corps has issued a General Permit (i.e., Lake Murray, Lake Marion, Lake Moultrie, etc.), and the work must be within the scope specified by the conditions of that General Permit. The Corps of Engineers has also issued 36 NWPs that could apply to a project an applicant intends to pursue. Activities authorized by these NWPs must meet certain conditions. When applying to the Corps for a NWP, a decision will be made whether or not the proposed work is authorized by an existing NWP. A complete discussion of Nationwide Permit Program can be found in Section V. The last type of permit is an Individual Permit. This type of permit requires a full public interest review, which includes issuance of a public notice and receipt and evaluation of all comments. The decision as to which type of permit applies will be made on an individual basis. When a permit is processed through the Individual Permit process, the decision whether to issue a permit will be based on an evaluation of the probable impacts of the project, including cumulative impacts of the proposed activity, and will include the application of guidelines promulgated by the Administrator of the Environmental Protection Agency in conjunction with the Secretary of the Army under authority of Section 404(b)(1) of the Clean Water Act.

These guidelines are entitled, "Guidelines for Specification of Disposal Sites for Dredged or Fill Material" (commonly referred to as the 404(b)(1) Guidelines). To evaluate which portion of these guidelines apply to the specific project, this office will first determine whether the project is "water dependent" or "non-water dependent". The term "water dependent" means that the project must be located in, or in close proximity, to the aquatic resource to fulfill its basic purpose.

The Corps of Engineers will determine the "overall project purpose" of the project and also determine the "basic" purpose of an applicant's discharges of dredged or fill material and whether or not the work is water dependent. Please be advised that the Corps of Engineers will consider an applicant's view regarding their interpretation of the project's "basic" and "overall project purpose". The Corps must determine these issues without undue deference to the applicant's wishes.

After receipt of the comments on a project, the Corps will send the applicant a letter which states the determination on water dependency, overall project purpose and basic purpose. This letter will afford the applicant an opportunity to clearly demonstrate, in writing, that there are no "practicable alternatives" which would fulfill the "overall project purpose" of the proposed work. In addition, all practicable alternatives which do not involve a discharge into a special aquatic site are presumed to have less adverse impacts on the aquatic ecosystem, unless clearly demonstrated otherwise. If the determination is water dependent, an applicant must still provide the Corps of Engineers with sufficient information to allow them to make a determination on practicable alternatives.

B. SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL - DIVISION OF WATER QUALITY

1. Purpose

To provide legal authority to perform approved construction and alteration activities in South Carolina navigable waters and to protect the public interest in those navigable waters of the State. The following permit information only applies to land below the mean low water line.

2. Permit Overview

Unless expressly exempted, a permit issued by the Department of Health and Environmental Control is required for any dredging, filling, construction or alteration activity in, on, or over a navigable water, or in, or on the bed under navigable waters, or in, or on lands or waters subject to a public navigational servitude, under Article 14 Section 4 of the South Carolina Constitution and 49-1-10 of the 1976 S.C. Code of Laws including submerged lands under the navigable waters of the State, or for any activity significantly affecting the flow of any navigable water.

Specific activities requiring this permit include, but are not limited to: construction of docks, piers, boat ramps, bulkheads, moorings, bridges, transmission lines; water intake structures and wastewater discharge structures; and the placement of fill and excavation of materials.

3. Identifying Navigable Waters of South Carolina

Navigable waters means those waters which are now navigable, or have been navigable at any time, or are capable of being rendered navigable by the removal of accidental obstructions, by rafts of lumber or timber, or by small pleasure or sport fishing boats. Navigability shall be determined by South Carolina Department of Health and Environmental Control - Division of Water Quality (DHEC - Division of Water Quality) in accordance with the definitions of navigable waters contained in Section 49-1-10 of the 1976 S.C. Code of Laws and Regulation 19-450.

Delineation of Navigable Waters of South Carolina is made by the Department of Health and Environmental Control staff through visual determinations made in the field based on State navigability criteria. Major jurisdictional waters have been determined and are indicated on a map entitled "Navigable Waters of South Carolina". These maps are available to the public and may be obtained upon request from DHEC - Division of Water Quality. Some waters have not been thoroughly inspected and are of uncertain status. These waters are investigated individually by the DHEC - Division of Water Quality as the need arises.

4. Statutory Authority for the Construction in Navigable Waters Permitting Program

Statutory authority for this program is found in Sections 1-11-70, 1-11-75, and 49-1-10, Code of Laws of South Carolina, 1976, as amended. Regulations promulgated by the South Carolina Department of Health and Environmental Control to implement this program are codified at Regulation 19-450.

5. Review of Construction in Navigable Waters Permit Applications

a. Review Process

State agencies commenting on permit applications are collectively responsible for providing to DHEC - Division of Water Quality a total assessment of the impact of any proposed work affecting navigable waters, stream beds, submerged lands or other lands or waters within the State's jurisdiction. Each agency is individually responsible for a specific area or field of review based on that agency's statutory responsibilities or primary interests, as they relate to the protection or development of the State's natural resources. Within its area of statutory responsibility or primary interest, each agency is to identify the advantages and disadvantages of the project on the lands and waters of the State and to provide an assessment of the relative merits of the proposed activity, whether environmentally harmless or not. State agencies that are included in this review process are:

- Department of Natural Resources
- Department of Archives and History

- Institute of Archaeology and Anthropology
- State Ports Authority
- Public Service Authority
- State Attorney General's Office
- Department of Transportation
- Department of Parks, Recreation, and Tourism
- State Forestry Commission
- Department of Health and Environmental Control
  - Office of Ocean and Coastal Resource Management
  - Division of Land Resources

In addition, comments are reviewed from various federal agencies, such as the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency, as well as comments from the general public. If the project is located within the coastal zone, a Coastal Zone Consistency determination must be issued prior to a navigable waters permit.

DHEC - Division of Water Quality is responsible for assessing the total impact of the projected activity on the navigable waters and lands subject to the jurisdiction of this regulation, as well as the impact on the economy and natural resources of the State. DHEC - Division of Water Quality is concerned with the utilization and protection of important State resources and balances the extent and permanence of reasonably foreseeable benefits and detriments of the projected activity, including its impacts on conservation, economics, aesthetics, general environmental concerns, cultural values, fish and wildlife, navigation, erosion and accretion, recreation, water quality, water supply and conservation. The projected activity must also be consistent with the needs and welfare of the public. In particular DHEC - Division of Water Quality shall consider the comments and objections of the affected agencies as well as the public, and the extent to which:

1. the activity requires construction in, on or over a navigable waterway, and the economic benefits to the State and public from such location;

2. the activity would harmfully obstruct navigability or the natural flow of navigable waters or cause erosion, shoaling of navigable channels, or the creation of stagnant waters;

3. the activity would impact fish and wildlife, water quality and other natural resource values or could affect the habitats or rare and endangered species of wildlife and irreplaceable historic and archaeological sites associated with public lands and waters;

4. the activity could affect public access to and use of public lands;

5. the economic benefits to the State and public from the authorized use of lands and waters meets or exceeds the benefits from preservation of the area in its unaltered state;

6. there is any adverse environmental impact which cannot be avoided by reasonable safeguards;

7. all feasible alternatives are taken to avoid adverse environmental impact resulting from the project; and,

8. the long range, cumulative effects of the project, including the cumulative effects of similar projects, may affect navigable waters.

b. Time for Response
All State agencies receiving public notice of permit applications must submit their comments directly to DHEC - Division of Water Quality within 30 days of receipt of the public notice. Requests by State agencies for extensions of time shall be submitted to DHEC - Division of Water Quality in writing before the expiration of the original comment period. A failure to comment, or to request an extension of time during that period, shall be treated as no objection to the application. DHEC - Division of Water Quality may consider untimely comments with good cause shown.

c. Form and Scope of Comments
DHEC - Division of Water Quality bases its review of comments and supporting materials on any conciliating objections on the terms and conditions of the proposed activity. Therefore, comments should be objective, and state specifically any conclusions concerning the permit application and include a summary for the supporting information. Objections should be specifically stated and contain supporting material. Comments which are without support, or are limited solely to use of adjacent private highlands, or are without a comparative assessment of the beneficial and detrimental impacts of the projected activity on lands and waters subject to the jurisdiction of DHEC - Division of Water Quality, may, in the discretion of DHEC - Division of Water Quality, be disregarded as non-responsive, or returned for reconsideration or reformulation. All comments shall be made public record, available at DHEC - Division of Water Quality.

6. Activities Requiring Only State Construction in Navigable Waters Permits
An applicant who seeks a permit from DHEC - Division of Water Quality is responsible for establishing that the proposed activity is consistent with permitting regulations and for providing any information required to make that determination. Failure to provide this information may result in the denial of the permit.

Except for the applications filed with federal agencies (described below), applications for State permits shall be made to the South Carolina Department of Health and Environmental Control on forms provided by DHEC - Division of Water Quality (a copy is included in Appendix A, pages 2-5) containing, but not limited to:

1. the name and address of the applicant;

2. the location of the proposed activity, including the navigable stream where the construction or activity is contemplated. An appropriate map of the area should be included;

3. a brief description of the proposed activity, its purpose and intended use, including a drawing of the type of structures and method of construction including size specifications;

4. a plan and elevation drawing showing the general and specific site locations and character of all proposed activities including the size relationship of the proposed structures to the size of the impacted waterway and depth of water in the area and the distance of encroachment of the activity into the water. A hand drawn sketch showing the size and shape of the structure and a location map will be considered sufficient detail for docks, piers, boardwalks or bulkheads without fill and extending no more than 50 feet from the shoreline;

5. evidence of ownership or the consent of the owners of the adjacent highland on which any part of the projected activity will be located;

6. Certification that the applicant has or will publish a one time notice describing the application in a newspaper of general or local circulation in the county where the encroachment is sought. Proof of the publication shall be furnished promptly, and the notice by the applicant shall be substantially in the following form:

PUBLIC NOTICE

> (Applicant) has applied to the South Carolina Department of Health and Environmental Control for a Construction in Navigable Waters Permit to (brief description of work) for (public/private) use in (name and location of waterbody). Comments will be received by South Carolina Department of Health and Environmental Control at 2600 Bull Street, Columbia, SC, 29201, ATTN: Division of Water Quality, until (insert date - 15 days from the date of this notice).

7. When considered appropriate by DHEC - Division of Water Quality, additional information may be required.

8. An application fee of $500 for commercial activities and $50 for non-commercial activities is required.

DHEC - Division of Water Quality will promptly issue a notice to the affected State agencies and adjacent property owners and make such other notice as it deems appropriate no later than 15 days after receipt of all information necessary to process the application.

7. Activities Requiring Construction in Navigable Waters and Federal Permits

When the applicant must obtain authorization from the Corps of Engineers or the Coast Guard pursuant to federal law, the applicant is directed to submit an application to those agencies in the style and on the forms provided by them. However, an agreement between State and federal agencies allows the application to federal agencies to be jointly used, and no separate application may be required for the State permit.

The Corps shall publish a joint public notice to provide interested agencies, groups and persons an opportunity to comment on a proposed project. The notice will contain a clear statement of the State permit requirements, and if necessary, certification that the permitted activity does not contravene the Coastal Zone Management Plan. Please note, the federal permitting agency may also require a certificate of water quality or waiver thereof from the Department of Health and Environmental Control.

Upon receipt of the joint public notice DHEC - Division of Water Quality shall notify the applicant that a State permit may or may not be required. If on the face of the joint public notice or application therein, it appears that insufficient or inaccurate information is presented, DHEC - Division of Water Quality shall notify the applicant and request such additional or corrected information as may be necessary. In addition to the joint public notice or public letter provided by government agencies, the applicant must publish a one time notice describing the application in a newspaper of general or local circulation in the county where the encroachment is sought. Proof of the publication shall be furnished promptly, and the notice by the applicant shall be substantially in the following form:

PUBLIC NOTICE

> (Applicant) has applied to the South Carolina Department of Health and Environmental Control for a Construction in Navigable Waters Permit to (brief description of work) for (public/private) use in (name and location of waterbody). Comments will be received by South Carolina Department of Health and Environmental Control at 2600 Bull Street, Columbia, SC, 29201, ATTN: Division of Water Quality, until (insert date - 15 days from the date of this notice).

Processing of the State permit application by DHEC - Division of Water Quality shall commence upon receipt of the joint public notice and shall be processed concurrently but separately from any federal authorization. The same scope of review described above in Section 6 will be applied to the application for federal and State permits.

8. Concurrent South Carolina Department of Health and Environmental Control Actions

Due to State government restructuring, South Carolina Department of Health and Environmental Control is now administering the Construction Navigable Waters Permitting program that was previously administered by the South Carolina Water Resources Commission for the Budget and Control Board. As a result, the Division of Water Quality manages the Construction in Navigable Waters Permitting Program and the 401 Water Quality Certification Program. To expedite the process, if both actions are required from DHEC - Division of Water Quality, both will be processed concurrently. One proposed decision and one final action will be taken, incorporating the permit and the certification into one.

Similarly, if one or both of these actions are required, including Coastal Zone Consistency Certification from DHEC's Office of Ocean and Coastal Resource Management, all actions will be processed concurrently and one proposed decision and one final action will be issued.

9. General Guidance

a. As the presumed owner of the beds of most South Carolina navigable waters, it is generally the policy of the State not to allow any filling of lands below the mean high water elevation in tidal waters or the ordinary high water elevation in non-tidal waters, as this represents a confiscation of State-claimed lands.

b. In the interest of protecting navigational safety, bridges spanning South Carolina navigable waters must provide adequate clearances for boating. These clearances are set forth by DHEC - Division of Water Quality.

c. In the interest of protecting navigational safety, structures in navigable waters must be constructed within certain limits (generally no more than one-third the distance across the waterway).

d. Applicants contemplating major projects are encouraged to contact DHEC - Division of Water Quality prior to submitting a formal application for a permit. DHEC - Division of Water Quality will advise the applicant of the procedures, requirements, and areas of regulatory concern, and in appropriate cases may convene an interagency meeting to assist and guide the applicant in the preparation of the permit application.

e. If DHEC - Division of Water Quality tentatively determines: (1) that the proposed activity is likely to produce an adverse impact on navigable waters or other associated natural resources; (2) that the applicant has already agreed to or taken all reasonable and feasible measures to prevent the detriment; (3) that the adverse impact relative to the benefit is not so great as to automatically require a recommendation of disapproval of the proposed activity on that or other grounds; and (4) that the proposed activity otherwise meets the water quality standards, DHEC - Division of Water Quality may request the applicant to submit a proposal to provide or create natural resources benefits. These benefits replace or compensate for the economic, environmental and natural resource benefits lost by the proposed activity. The proposal compensation or

replacement results in a net gain of natural resource benefits to the State, considering the detriment or negative impacts of the project.

The compensation or replacement, however, may not: (1) be made for a project that produces no benefits to the public or State; or (2) be made where the proposed activity amounts to a taking of public land for private purposes, when there is a reasonable and feasible alternative step, effort, or activity available that prevents or corrects a detriment created by the proposed activity. A reasonable and feasible alternative step, effort, or activity shall not be deemed unreasonable or infeasible because it would require the applicant to expend more time, effort, or expense than the proposed replacement or compensation offered by the applicant.

The following are considered when evaluating a compensation plan:

1. whether the compensation is of the same type, quality and extent as the project area.
2. the need for public access comparable to any lost with the project.
3. the location on or near the impacted area.
4. the costs to the landowner and the State.
5. the necessity for financial guarantees or other requirements to ensure the realization of the public benefit.

10. Agency Contact

Anyone planning to perform construction or alteration work in navigable waters of South Carolina or waterbodies of uncertain navigability status should contact the DHEC prior to the initiation of any work. DHEC is available to answer questions on the permitting program, make jurisdictional determinations and provide applications for required permits. Individuals requesting additional information should contact:

South Carolina Department of Health and Environmental Control
Division of Water Quality
2600 Bull Street
Columbia, SC 29201
Telephone: 803-734-5300

C. SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL - OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT

1. Coastal Zone Management Program Consistency Certification

South Carolina's Coastal Zone Management Act of 1977 (Act 123) *defines the State's coastal zone as "all coastal waters and submerged lands seaward to the State's jurisdictional limits and all lands and waters in the counties of the State which contain any one or more of the critical areas."* The critical areas, (1) coastal waters (2) tidelands, and (3) beach and dune systems, fall under the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management's (OCRM) direct permitting authority.

Freshwater wetlands, however, are given protection through the Coastal Zone Consistency Certification program. Through the certification program the OCRM reviews all activities requiring permits by other State agencies, as well as federal agencies, to determine if the project is consistent with the Coastal Zone Management Program. In order to receive certification approval, an activity must be determined to be consistent with relevant policies contained in the S.C. Coastal Zone Management Program, including the S.C. Stormwater Management and Sedimentation Control Act of 1991. These policies and guidelines are aimed at protecting freshwater wetland areas, as well as the quality of surface waters. Without the OCRM certification, a federal permit or another State agency permit for the particular activity in question cannot be issued by the permitting agency.

Under the South Carolina Stormwater Management and Sediment Reduction Act, a stormwater management plan in compliance with the requirements of existing regulations must be submitted for most land disturbing activities in South Carolina. The OCRM administers the stormwater management program in the eight coastal counties. The stormwater permitting program for the rest of the State is administered by the Department of Health and Environmental Control - Bureau of Water Pollution Control. Currently all land disturbing activities of two acres or greater of actual disturbances require permitting. In the coastal counties, if the activity is within one-half mile of a receiving waterbody, projects disturbing less than two acres may require a permit depending on the type of project. Land disturbances of five acres or greater require Nonpoint Source Discharge Elimination System construction permits regardless of the location of the activity. Specific requirements of the permit application and approval process are based on the amount of actual land disturbance and, if the activity is in the coastal zone, the project's proximity to a receiving waterbody. A fee of $50 per disturbed acre up to a maximum of $1000 is required for all land disturbance activities of greater than two acres. There is no fee charged for government activities (local, state, or federal) or for projects that disturb two acres or less. A $100 fee is assessed on an application for a waiver or variance. The Department of Health and Environmental Control staff conducts periodic site inspections on all land disturbing activities.

In summary, a direct OCRM permit is not required for activities in freshwater wetlands; however, the OCRM certification is mandatory whenever the permit of another State agency or a federal agency is required for a particular activity. The activity must be consistent with the policies of the South Carolina Coastal Zone Management Program.

2. Procedure

When an individual wants to pursue an activity (e.g., constructing a dock, boat ramp, or bulkhead; dredging in a wetland; mining in a wetland; placing fill in a wetland; impounding a wetland; constructing water supply lines or wastewater lines, etc.) which falls under the permitting authority of a State or federal agency, one must apply to the particular agency or agencies for a permit. That State or federal agency notifies the OCRM through a standard public notice or other type of notification (depending on the activity involved), and a review of the proposed

activity is begun by the OCRM staff. During the review, the OCRM is also responsible for administering the Stormwater & Sedimentation Permit Program within the coastal zone.

The OCRM review process involves the submittal of site plans and/or site visits and consideration of other available information (e.g., photography, National Wetlands Survey mapping, soil surveys, etc.). Based upon this information the OCRM then makes a decision as to whether or not the project is consistent with the policies of the Coastal Zone Management Program and notifies the permitting agency, as well as the applicant of its determination. This determination will always be one of the following:

a) the project is consistent with the Coastal Zone Management Program
b) the project is inconsistent with the Coastal Zone Management Program
c) the project is inconsistent but can be made consistent by making certain identified modifications to the original plans.

The OCRM is responsible for certifying consistency directly to the COE for federal activities, including Nationwide Permits. For all other activities, the OCRM certifies coastal zone consistency to the Department of Health and Environmental Control, Office of Environmental Quality Control (EQC), which administers the State certification. In some cases multiple permits and certifications may be required. For example, a single project such as the construction of a roadway or utility line might require; a direct OCRM permit, a State Navigable Waters Permit, State Water Quality Certification, and a Coastal Zone Consistency Certification. In these instances all "Department of Health and Environmental Control actions" are combined into a single State permit or certification. The State certification is issued by EQC for all actions that do not involve a direct OCRM permit. All EQC and OCRM requirements for certification must be met in any Department of Health and Environmental Control regulatory action.

In the instance of a large project/development where a problem (i.e., conflict with the S.C. Coastal Zone Management Program policies) with certification is obvious at the beginning of its review, the staff will try to contact the applicant to make aware the problem(s) in order that plan modifications may be discussed. Developers of large projects (i.e., commercial and/or housing developments) are encouraged to seek the OCRM input early-on before the application is formally submitted.

In the case of the OCRM's review of applications for U.S. Army Corps of Engineers Nationwide Permits, the project review cannot be completed until the applicant places a public notice in a newspaper and forwards a notarized "proof of publication" to the OCRM. As required in 15 CFR 930.61, applicants for permits to alter a jurisdictional wetland shall publish a one time notice in a newspaper published in the county of the proposed activity or a newspaper of general Statewide circulation. The newspaper notice must be published before the OCRM can take any action on the proposed activity. No permit application

can be certified by the OCRM within the 15-day period following date of newspaper notice. The following shall be used for the newspaper publication:

PUBLIC NOTICE

> (Applicant) will apply (has applied) to the U.S. Army Corps of Engineers for a permit to (description of work) for (public/private) use, at/in (location). Comments will be received by South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management, 4130 Faber Place, Suite 300, Charleston, SC 29405 until (insert date, 15 days from the date of this notice).

OCRM will have 30 days from the date of the Corps public notice to receive comments from other State agencies involved in the environmental review and to make a certification decision on the proposed activity.

Each project is reviewed in accordance with the policies established in the S.C. Coastal Zone Management Program document. In the case of federally permitted and licensed projects, a Notice of Intent is issued to the permitting agency (e.g., COE), applicant and any commentors; and for State permitted projects, a final certification decision is issued. Both cases provide for a 10 day period during which proposed decisions can be appealed by the applicant or any person(s) adversely affected by the project. Upon receipt of a notice on intent to appeal a certification decision, the OCRM will notify the permitting agency and the applicant, providing 10 days for a statement and supporting information to be submitted in support of the appellant's position. Afterwards, the OCRM will have 10 days in which to review the statement and supporting information to make a final decision. (The South Carolina Department of Health and Environmental Control Board handles all appeals, except for those based exclusively on coastal zone issues, which are overseen by the Coastal Zone Appellate Panel.)

3. Basic Freshwater Wetland Policy

Policies for projects impacting freshwater wetlands in the coastal zone are found in the South Carolina Coastal Zone Management Program. Specific wetland policies are included in the management plan for residential, commercial, industrial, and other development projects; however, the underlying policy can be summarized as follows:

> Project proposals which would require fill or other significant permanent alteration of a productive freshwater wetland will not be approved unless: no feasible alternative exists or an overriding public interest can be demonstrated, and any substantial environmental impact can be minimized.

This policy applies to all projects requiring a direct OCRM permit and all projects within the eight-county coastal zone requiring OCRM's certification of any other State or federal permit.

The most basic advice to developers of land containing freshwater wetlands is to avoid wetland alterations where possible. Encroachment (e.g., filling, dredging, clearing, ditching, impounding) into wetlands will only be allowed in limited circumstances as defined under the policies of the Coastal Zone Management Program. Exceptions are discussed in the following sections on stormwater management and wetland master planning.

4. Developing Stormwater Management Systems in Freshwater Wetlands

Many projects within the coastal zone will be located within or adjacent to freshwater wetlands. These wetlands are natural filters and can often be utilized as receiving areas for stormwater runoff. Therefore, these wetland systems, when combined with stormwater "best management practices", can frequently be incorporated into the overall drainage plan. The OCRM does not support the wholesale conversion of natural wetlands into lagoon or lake systems, but will approve the use of these areas in their natural state or with necessary alterations as part of the stormwater management system.

When using freshwater wetlands in the stormwater management system, a well-planned effort is required to avoid any potential damage to the natural resources. The system should include a variety of individual "best management practices" that work together to achieve the desired results. For example, a pre-treatment lake located in highground adjacent to a wetland can reduce sediment loads, remove oils and greases and attenuate stormwater volumes. Also, grassed swales could be used to collect and convey stormwater to a distribution system (e.g., spreader swale, overflow berm, riprap discharge structure, etc.) to ensure sheetflow of stormwater through the wetland. This provides for greater contact of the stormwater with the vegetation of the wetland and ensures a longer residence time within the wetland. All projects using wetlands in their stormwater design must incorporate an extensive sediment and erosion control plan during construction. The entire wetland area needs to be protected against any potential sediment intrusion. In addition, all projects of this type should include a mechanism to minimize the amounts of oils and greases entering the wetlands.

The following guidelines should be used in designing and constructing such systems:

When freshwater wetlands are involved in a project site, the following order of design priorities will be used for stormwater systems:

(1) Avoid the wetlands; use highground alternatives, ponds, swales, etc.

(2) Use wetlands in their natural state.

(a) Sheetflow stormwater over grassed areas into wetlands using other best management practices as appropriate.

(b) Manage water levels to maintain the hydrology of the natural wetland.

(3) Excavate storage requirement out of immediately adjacent highground and overflow into the wetland area for additional treatment.

(4) In special cases where the above alternatives are impractical, the OCRM staff will coordinate with the applicant to identify alternatives.

5. Wetland Master Planning Guidelines

The OCRM encourages a comprehensive approach to wetland management. To promote such an approach, the OCRM utilizes a "wetland master planning" concept.

If a pre-development wetland master plan is prepared for a project, identifying all wetlands, drainage patterns, and conceptual development, isolated freshwater wetlands of one acre or less in size may be incorporated into the project development as necessary, provided:

1. the wetlands contain no endangered species or critical habitat, and;
2. the wetland losses are adequately mitigated.

The wetland master plan must be certified by the OCRM with input from other reviewing agencies. In the absence of a wetland master plan, the Resource Policies, Chapter II, Coastal Zone Management Program, will be utilized to guide project certification.

6. Agency Contact

For information regarding OCRM certification of projects containing freshwater wetlands contact:

Coastal Zone Management Division
South Carolina Department of Health and Environmental Control
Office of Ocean and Coastal Resource Management
4130 Faber Place, Suite 300
Charleston, SC 29405
Telephone: 803-744-5838

D. SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, SECTION 401 WATER QUALITY CERTIFICATION

1. Introduction

Section 401 Water Quality Certification ensures that any activity requiring a federal permit or license and which may result in a discharge to waters of the United States will not cause contravention of the State water quality standards. Activities generally requiring water quality certification are permitted by the U.S. Army Corps of Engineers, the U.S. Coast Guard, and the Federal Energy Regulatory Commission.

2. Authorizing Statutes

a. Federal

Section 401 of the Federal Water Pollution Control Act of 1972 (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L. 95-217) and the Water Quality Act of 1987 (P.L. 100-4). [U.S.C. 1251 et seq]

b. State

Not applicable

3. Title of Regulation

a. Federal

40 CFR 121, State Certification of Activities Requiring a Federal License or Permit.

b. State

South Carolina Regulation 61-101, Water Quality Certification

4. Fees

Major activities and Office of Ocean and Coastal Resource Management permits requiring South Carolina Department of Health and Environmental Control (DHEC) 401 Water Quality Certification - $500.00

Minor activities - $50.00

5. Other Requirements/Issues

a. The federal permit or license cannot be issued without water quality certification. Any conditions of certification become part of the federal permit or license when issued.

b. Some projects requiring a permit or license and water quality certification may also require a South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management Permit or Division of Water Quality Permit. DHEC certifies that the activities receiving the State permits will not cause violations of water quality standards.

c. Applicants are encouraged to participate in a preapplication meeting with the Corps, DHEC, and other State permitting agencies to discuss the project prior to formal application to the Corps.

6. Summary of Section 401 Water Quality Certification Applicability and Procedures

a. Applicability

Any applicant for a federal permit or license for an activity which may result in a discharge to waters of the United States, including wetlands, must receive certification from DHEC that applicable State water quality standards will not be violated. The federal permit or license cannot be issued until after certification is issued, and cannot be issued at all if certification is denied.

Certification is required for activities permitted by the U.S. Army Corps of Engineers for activities that may involve a discharge into the waters of the United States, including wetlands.

Examples of activities requiring Corps permits are construction of marinas, docks, bulkheads, boat ramps, roadways, impoundments, and canals. U.S. Coast Guard permits for bridge construction require certification. Federal Energy Regulatory Commission licenses for hydroelectric projects require certification.

b. Summary of Certification Procedures

1. Application for Certification

After an applicant has applied to the U.S. Army Corps of Engineers, the Corps issues a joint Federal/State Public Notice for the proposed activity. This joint public notice serves as application to DHEC for certification. Applicants for other Federal permits or licenses must apply directly to DHEC which issues a separate public notice of the application.

2. Public Notice

The applicant must publish notice of application in a newspaper of local or general circulation reasonably expected to cover the area affected by the activity. The applicant shall provide DHEC with an affidavit of publication from the newspaper within 15 days of the publication. Newspaper public notice forms are included in Appendix A, pages 6-11.

3. Public Hearing

DHEC shall hold a public informational hearing whenever 20 or more individual written requests are received during the public comment period and which raise water quality and/or classified use issues. A hearing may also be held whenever DHEC staff determines that it may be useful in reaching a decision on an application.

4. Review and Notice of Proposed Decision

Written comments submitted during the designated comment period for each joint public notice are reviewed and considered by DHEC staff. The DHEC staff may request additional information from the applicant any time during the review process, but preferably immediately upon receipt and review of the public notice. After the public comment period and review of all available information, DHEC prepares a written staff assessment considering all application materials, supporting documentation, and other comments. DHEC staff will generally complete their assessment within 15 days after the public comment period ends. DHEC then issues a Notice of Proposed Decision which is sent to the applicant, adjacent property owners, agencies with jurisdiction or interest over the activity site, and those persons providing comments in response to the initial notice of application. All aggrieved parties have 15 days to appeal this proposed decision under DHEC Regulation 61-72. Appeals are handled according to the S.C. Administrative Procedures Act and DHEC procedures for contested cases pursuant to Regulation 61-72. The action of the Board on the hearing officer's decision is the DHEC's final decision on appeals. If no appeal is received, the proposed decision becomes DHEC's final action.

5. Restructuring of South Carolina Department of Health and Environmental Control and its Effects

On July 1, 1994, at the direction of the South Carolina General Assembly, the South Carolina Department of Health and Environmental Control consolidated its existing permitting functions and programs with those that existed in the South Carolina Water Resources Commission, South

Carolina Land Resources Conservation Commission, and the South Carolina Coastal Council (now Office of Ocean and Coastal Resource Management). The restructuring was designed to provide better coordination of environmental permitting and regulatory communication with business, government and the general public. Due to this reorganization, some aspects of the permitting application, review, and enforcement processes have been altered.

6. Concurrent South Carolina Department of Health and Environmental Control Actions

Due to State Government restructuring, DHEC is now administering the Construction in Navigable Waters Permitting Program which was previously administered by the South Carolina Water Resources Commission for the Budget and Control Board. As a result, the Division of Water Quality manages the 401 Water Quality Certification Program and the Construction in Navigable Waters Permitting Program. To expedite the processes, if both actions are required from DHEC, both will be processed concurrently. One proposed decision and one final action will be taken, incorporating the permit and the certification into one action.

If the project is located in the "critical area" of the coastal zone, a Coastal Zone Management Program consistency determination is required by the Office of Ocean and Coastal Resource Management.

7. Regulations

Regulation 61-101, Water Quality Certification, sets forth administrative procedures and technical review criteria for the 401 Water Quality Certification Program. State regulations 61-68 and 61-69, Water Classifications and Standards, and Classified Waters serve as a basis for decision-making for 401 Water Quality Certification. These regulations: (1) establish appropriate classified water uses to be achieved and protected; (2) establish general rules and specific water quality standards to protect classified and existing water uses; and (3) establish policies to maintain and enhance water quality. These regulations should be consulted for specifics on: (1) classified uses, (2) general rules and standards for all water, (3) class specific numeric water quality standards, and (4) antidegradation rules.

8. Issues

Each application is evaluated on a case-by-case basis. Using Regulation 61-101 DHEC determines whether there is reasonable assurance that water quality standards will not be violated and that existing water uses will be maintained. Regulation 61-101 requires DHEC to consider whether or not a project is water dependent; whether or not there are feasible alternatives which will have less adverse consequences on water quality and classified uses; the intended purpose of the project; and all potential water quality impacts of the project, both direct and indirect, over the life of the project. Certification will be denied if:

1. the proposed activity permanently alters the aquatic ecosystem in the vicinity of the project such that its functions and values are eliminated or impaired;
2. there is a feasible alternative to the activity which reduces adverse consequences on water quality and classified uses;
3. the proposed activity adversely impacts waters containing State or federally recognized rare, threatened, or endangered species; or
4. the proposed activity adversely impacts special or unique habitats, such as National Wild and Scenic Rivers, National Estuarine Research Reserves, National Ecological Preserves, or designated State Scenic Rivers.

9. Major Issues DHEC Staff Confronts

a. Marinas

New commercial marinas or expansion of existing marinas in open shellfish harvesting areas are not acceptable due to the creation of prohibited areas where shellfish harvesting is not allowed. This would remove an existing use of the waterbody and would be a violation of the antidegradation rules of Regulation 61-68. Generally, marinas in class SFH waters are not certified by DHEC if shellfish resources exist or could exist in such waters. Also, it is crucial that marinas are located in areas which provide adequate flushing. It is the burden of the applicant to provide sufficient evidence to assure DHEC that all marinas will be adequately flushed and that numerical water quality standards will not be violated.

b. Dead-end canals

Due to the poor circulation and mixing in dead-end canals, water quality standards are often violated in such systems; therefore, lengthy dead-end canals are discouraged. DHEC generally looks unfavorably on applications for canals over 50 feet in length unless technical evidence is provided to assure adequate flushing and water quality.

c. Fill material in wetlands

Wetlands function to improve water quality by trapping sediments, nutrients, and pollutants suspended in the water flowing over them. Wetlands also provide habitat for aquatic fauna and flora and other wildlife. Placement of fill material in wetlands can impact these functions and destroy habitat. DHEC considers the specific impacts of the project on water quality, water flow restrictions, wetland functions, and designated and existing uses. Cumulative impacts of fill projects on water quality and designated and existing uses are considered.

d. Impoundments in tidal areas

Due to documented poor water quality conditions in impoundments and restrictions of tidal exchange affecting aquatic life, new impoundments and reimpoundments of previously diked areas now functioning as natural systems are not certified. DHEC generally approves maintenance, repair, and improvements of existing impoundments.

e. Filling freshwater wetlands to create ponds or lakes
Such activities are sometimes certified if designed as flow through systems and downstream use and water quality will not be degraded. Also, there must be an indication that upstream discharges of nutrients will not cause eutrophication or nuisance conditions in the pond or lake. Wetland impacts will also be considered in DHEC's review.

f. Dredging and excavation projects
Several factors are considered when reviewing hydraulic dredging projects and excavation using mechanical equipment. These include the quality of sediments to be removed, the proposed spoil disposal area location and design, return water flow quality and discharge location, and the resulting physical characteristics of the area dredged or excavated. The applicant is usually required to provide elutriate testing of the sediments to be dredged for data comparison to State water quality standards. Maintenance of existing canals, basins, and waterways is approved provided they meet original design specifications and DHEC conditions. New projects are closely reviewed to determine water quality impacts from dredging and water quality in the waterbody or channel created by the work. It is the responsibility of the applicant to demonstrate that water quality standards will not be violated by the work.

10. Agency Contact
Division of Water Quality
Bureau of Water Pollution Control
Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201
Telephone: 803-734-5300

V. THE PERMITTING PROCESS

The discussion in this section deals with Federal permit requirements and processing procedures under Sections 404 and 401 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Activities subject to other laws or regulations may have additional requirements not discussed herein. This section attempts to address the following questions.

- *What activities require permits?*
- *What activities do not require permits?*
- *How do I obtain permits and what are the procedures involved?*

A. ACTIVITIES REQUIRING FEDERAL PERMITS

The following activities specified in 33 CFR Parts 320 - 330 normally require a Department of the Army permit.

- Dikes and/or dams in navigable waters of the United States.
- Structures and/or work in or affecting navigable waters of the United States.
- The discharge of dredged or fill material into waters of the United States.
- Structures or work outside the limits of navigable waters of the United States, if these activities affect the course, location, or condition of the waterbody in such a manner as to impact on its navigable capacity.
- The transportation of dredged material for the purpose of dumping it in ocean waters.
- A tunnel or other structure or work under or over a navigable water of the United States.
- The construction of artificial islands, installations, and other devices on the seabed, to the seaward limit of the outer continental shelf, pursuant to the Outer Continental Shelf Lands Act as amended.
- Structures for small boats including; piers, boat docks, moorings, platforms and similar structures in navigable waters of the United States.
- Aids to navigation, including fixed and floating aids, in a navigable water of the United States.

- A canal or other artificial waterway is subject to regulation if it constitutes a navigable water of the United States, or if it is connected to navigable waters of the United States in a manner which affects their course, location, condition, or capacity, or if at some point in its construction or operation it results in an effect on the course, location, condition, or capacity of navigable waters of the United States.

- The connection to navigable waters of the United States.

- Power transmission lines crossing navigable waters of the United States unless those lines are part of a water power project, subject to the regulatory authorities of the Department of Energy under the Federal Power Act of 1920.

- Structures in navigable waters of the United States associated with seaplane operations.

- The landing or operation of submarine cables when the activity affects navigable waters of the United States or involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of dumping it into ocean waters.

- The construction, operation, maintenance, or connection of facilities at the borders of the United States which affects the navigable waters of the United States or involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of dumping it into ocean waters.

- Structures located within shipping safety fairways and anchorage areas established by the U. S. Coast Guard. The Department of the Army will grant no permits for the erection of structures in areas designated as fairways, except that district engineers may permit temporary anchors and attendant cables or chains for floating or semisubmersible drilling rigs to be placed within a fairway under certain conditions.

- If any discharge of dredged or fill material resulting from the exempted activities listed in 33 CFR Part 323.4 paragraphs (a)(1) through (6) contains any toxic pollutant listed under section 307 of the Clean Water Act such discharge shall be subject to any applicable toxic effluent standard or prohibition, and requires a Department of the Army permit.

- Any discharge of dredged or fill material into waters of the United States incidental to any of the exempted activities identified in 33 CFR Part 323.4 paragraphs (a)(1) through (6) must have a Department of the Army permit if it is part of an activity whose purpose is to convert an area of the waters of the United States into a use to which it was not previously subject, where the flow or circulation of waters of the United States may be impaired or the reach of such waters reduced. Where the proposed discharge will result in significant discernible alterations to flow or circulation, the presumption is that

flow or circulation may be impaired by such alteration. For example, a permit will be required for the conversion of a cypress swamp to some other use or the conversion of a wetland from silvicultural to agricultural use when there is a discharge of dredged or fill material into waters of the United States in conjunction with construction of dikes, drainage ditches or other works or structures used to effect such conversion. A conversion of a Section 404 wetland to a nonwetland is a change in use of an area of waters of the United States. A discharge which elevates the bottom of waters of the United States without converting it to dry land does not thereby reduce the reach, but may alter the flow or circulation of waters of the United States.

B. ACTIVITIES EXEMPTED UNDER THE CLEAN WATER ACT

When Congress approved the Clean Water Act, it included in the law exemptions for certain activities. Exemptions were written into the law to allow discharges associated with those specific activities to proceed without having to obtain a federal permit pursuant to Section 404. The authority for determining whether an activity is exempt from Section 404 rests with both the U. S. Army Corps of Engineers (COE) and the Environmental Protection Agency. Anyone that believes that an activity they are proposing to undertake is exempt (e.g. farm or stock ponds, agricultural or silvicultural activities in wetlands), should contact the COE to confirm that the work meets the terms of the relevant exemption before proceeding. Although such verification is not required, it is strongly recommended for all activities with more than minimal impacts to waters of the United States.

The following listed activities given in 33 CFR Parts 320 - 330 are exempted from Department of the Army permit requirements under Section 404 of the Clean Water Act. However, if the activity involves a structure or work in or affecting navigable waters of the United States, a permit may be required under Section 10 of the Rivers and Harbors Act of 1899. These exemptions do not obviate any State or local permit requirements nor do they apply to federal permits required by other laws or regulations.

1. *Normal farming, silviculture and ranching activities such as plowing, seeding, cultivating, minor drainage, and harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices.* To fall under this exemption, the activity must be part of an established (i.e., ongoing) farming, silviculture, or ranching operation and must be in accordance with the definitions given in 33 CFR Part 323.4. Activities on areas lying fallow as part of a conventional rotational cycle are part of an established operation. Activities which bring an area into farming, silviculture, or ranching use are not part of an established operation. An operation ceases to be established when the area on which it was conducted has been converted to another use or has lain idle so long that modifications to the hydrological regime are necessary to resume operations.

2. *Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures.* Maintenance does not include any modification that changes the character, scope, or size of the original fill design. Emergency reconstruction must occur within a reasonable period of time after damage occurs in order to qualify for this exemption.

3. *Construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance (but not construction) of drainage ditches.* Discharges associated with siphons, pumps, headgates, wingwalls, weirs, diversion structures, and such other facilities as are appurtenant and functionally related to irrigation ditches are included in this exemption.

4. *Construction of temporary sedimentation basins on a construction site which does not include placement of fill material into waters of the United States.* The term "construction site" refers to any site involving the erection of buildings, roads, and other discrete structures and the installation of support facilities necessary for construction and utilization of such structures. The term also includes any other land areas which involve land disturbing excavation activities, including quarrying or other mining activities, where an increase in the runoff of sediment is controlled through the use of temporary sedimentation basins.

5. *Any activity with respect to which a State has an approved program under Section 208(b)(4) of the Clean Water Act which meets the requirements of Sections 208(b)(4)(B) and (C).*

6. *Construction or maintenance of farm roads, forest roads, or temporary roads for moving mining equipment, where such roads are constructed and maintained in accordance with best management practices to assure that flow and circulation patterns and chemical and biological characteristics of waters of the United States are not impaired, that the reach of the waters of the United States is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized.* These best management practices (for a copy of best management practices contact the S.C. Forestry Commission) which must be applied to satisfy this provision shall include those detailed best management practices described in the State's approved program description pursuant to the requirements of 40 CFR Part 233.22(i), and shall also include the baseline provisions given in 33 CFR Part 323.4.

7. *Federal projects which qualify under the criteria contained in Section 404(r) of the Clean Water Act are exempt from Section 404 permit requirements, but may be subject to other state or federal requirements.*

For several years the Environmental Protection Agency made case-by-case decisions on many of these exemptions. Recently, that role has been returned to the Corps of Engineers. The Charleston District Corps of Engineers is currently working on specific guidelines for application of these exemptions.

Exceptions To Exemptions Under The Clean Water Act
Any discharge of dredged or fill material resulting from the activities listed above in paragraphs (1) through (6) containing any toxic pollutant listed under Section 307 of the Clean Water Act shall require a Section 404 permit.

Any discharge of dredged or fill material into waters of the United States incidental to any of the activities identified above in paragraphs (1) through (6) must have a permit if it is part of an activity whose purpose is to convert an area of the waters of the United States into a use to which it was not previously subject, where the flow or circulation of waters of the United States may be impaired or the reach of such waters reduced. Where the proposed discharge will result in significant discernible alterations to flow or circulation, the presumption is that flow or circulation may be impaired by such alteration. For example, a permit will be required for the conversion of a cypress swamp to some other use or the conversion of a wetland from silvicultural to agricultural use when there is a discharge of dredged or fill material into waters of the United States in conjunction with construction of dikes, drainage ditches or other works or structures used to effect such conversion.

C. ACTIVITIES EXEMPTED UNDER THE RIVERS AND HARBORS ACT

The following listed activities given in 33 CFR Parts 320 - 330 are exempted from Department of the Army permit requirements under Section 10 of the Rivers and Harbors Act of 1899. However, if the activity involves the discharge of dredged or fill material into waters of the United States, a Department of the Army permit may be required under Section 404 of the Clean Water Act. These exemptions do not obviate any State or local permit requirements nor do they apply to Federal permits required by other laws or regulations.

1. Activities commenced or completed shoreward of established federal harbor lines before May 27, 1970.

2. Construction of wharves and piers in any waterbody, located entirely within one state, that is a navigable water of the United States solely on the basis of its historical use to transport interstate commerce.

D. PROCESSING PROCEDURES

This section addresses the various procedures involved in obtaining approval for work that impacts waters of the United States, which includes wetlands. The procedures involved depend on where the project is located, the type of work proposed, and the size of the area affected by the work. There are basically two processes that may be used.

- The Individual Permit Process. *An Individual Permit is a Department of the Army authorization that is issued following a case-by-case evaluation of a specific project in accordance with the procedures of the applicable regulations and 33 CFR Part 325, and a determination that the proposed structure or work is in the public interest pursuant to 33 CFR Part 320.*

- The General Permit Process. *A General Permit means a Department of the Army authorization that is issued on a nationwide or regional basis for a category or categories of activities. This refers to both those permits issued by District or Division Engineers on a regional basis and to Nationwide Permits which are issued by the Chief of Engineers through publication in the Federal Register.*

1. The Individual Permit Process

If a project involves one or more of the activities which require permits (e.g. fill in U.S. waters) and, one or more of those activities is not exempted and does not qualify for authorization under a General Permit, then an Individual Permit will be required. Furthermore, regardless of the federal General Permits, any activity in the critical area of the coastal zone may require a State Permit. (*Please contact the Office of Ocean and Coastal Resource Management for information obtaining to State permits for activities in the critical area.)* The Individual Permit process and the information needed to begin this process is outlined in a booklet entitled "U.S. Army Corps of Engineers, Regulatory Program, Applicant Information." Copies are available upon request from the COE or the South Carolina Department of Health and Environmental Control.

In most cases, a permit or certification will also be required from the South Carolina Department of Health and Environmental Control. To facilitate processing of the permit application, agreements have been implemented between the COE and the South Carolina Department of Health and Environmental Control which allow for the joint processing of permit applications. *Joint procedures* are those developed between the COE and State agencies or other federal agencies with ongoing permit programs for activities regulated by the Department of the Army. Such procedures may be substituted for the procedures in 33 CFR Part 325.2, paragraphs (a)(1) through (5) provided that the substantive requirements of those sections are maintained.

Under the COE and South Carolina Department of Health and Environmental Control joint procedures, if the work requires both a Department of the Army permit and either a State navigable water permit, or a State Coastal Zone Consistency Certification, or a State 401 Water Quality Certification, then an application need only be submitted to the Corps of Engineers for both the federal and State Permits or certifications. This eliminates duplication of paperwork and effort in the preparation of the necessary information that is required to begin this process.

Projects that are located in the "critical areas" of the coastal zone are processed jointly with the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management.

Projects that are located in the non-critical areas of the coastal zone are processed jointly with the South Carolina Department of Health and Environmental Control - Division of Water Quality.

Projects that are located inland of the coastal zone, are processed jointly with the South Carolina Department of Health and Environmental Control - Division of Water Quality.

a. Pre-Application

For projects with potentially significant or controversial impacts it may be advisable to present your project to the permitting and certifying agencies prior to submittal of an application for an Individual Permit. A pre-application meeting can provide information that may make the project more environmentally acceptable. Often such meetings point out potentially less damaging alternatives which may minimize the concerns of the environmental review agencies. Pre-application meetings can involve as many or as few agencies as may be appropriate and can be held on-site or in one of the permitting or certifying agency's offices. To discuss arranging for a pre-application meeting, contact a project manager at one of the permitting agencies.

b. Application Informational Requirements

The permit process starts with the submittal of an application form and drawings which clearly depict the work being proposed. When an application is received by the COE it is assigned to a project manager and is given a number for identification purposes. The project manager will be responsible for all actions associated with its processing and will ultimately recommend the final action to the District Engineer or his designee. All questions regarding the application should be directed to the project manager except that for questions related exclusively to the State permit or certification process, the applicant should contact the appropriate State agency directly.

The COE permit booklet contains an application form and sample drawings. A copy of the application form is included in Appendix A, pages 12-15, of this handbook. Additional drawing samples and information are generally made available upon request. One of the important parts of a submittal is a complete written description of the project, the work to be performed and a concise and accurate statement defining the project's primary purpose. In addition, the dimensions (i.e., length, width, depth) and quantities (i.e., acres, cubic yards) of all impacts to aquatic areas should be provided. For non-water dependent projects and projects with more than minimal impacts, the applicant may help reduce processing time by submitting a written alternatives analysis and a compensatory mitigation proposal along with the application.

The drawings depicting the project must be clear, accurate, and contain all necessary information. The informational requirements for application drawings are listed below. Sample drawings are included in Appendix A, pages 16-25. In addition to the drawings submitted with your application, large scale total development plans with the wetland boundary annotated thereon may also be provided if necessary to adequately review the project.

An application will be determined to be complete when sufficient information is received to issue a public notice. The public notice is the primary method of advising all interested parties of the proposed activity for which a permit is sought and of soliciting comments and information necessary to evaluate the probable impact on the public interest. The notice must, therefore, include sufficient information to give a clear understanding of the nature and magnitude of the activity to generate meaningful comment. The following items will normally be required as the minimum information necessary to consider an Individual Permit application complete.

Basics. The following items are required.

- A completed application form.
- The name and address of the applicant.
- The location, purpose, intended use and need for the proposed activity.
- The names and addresses of adjoining property owners.
- The location and dimensions of adjacent structures.
- Scheduling of the activity.

Authorizations. A list of other government authorizations obtained, requested, or required from other federal, interstate, state, or local agencies, including all approvals received or denials already made.

Signature. The application must be signed by the person who desires to undertake the proposed activity (i.e. the applicant) or by a duly authorized agent. When the applicant is represented by an agent, that information must be included on the application or by a separate written statement. An application may include the activity of more than one owner provided the character of the activity of each owner is similar, in the same general area, and each owner submits a statement designating the same agent.

Coastal Zone Management Certification. For non-federal applications in the coastal zone, the application must include a statement of compliance with the Coastal Zone Management Plan. A sample statement of compliance is available in Appendix A, page 26. You may use the sample statement or prepare one.

Maps. A location map showing the site of the proposed activity must be furnished. The site must be clearly marked and shown relative to the nearest major waterways, roads, and cities in the area. The source and date of the map used must be written on the map. Maps are considered drawings and must conform to the general requirements given for drawings (i.e., 8½" x 11" paper, no coloring, title block, etc.). Maps must have a title block similar to other drawings and must be included in the drawing numbering scheme (i.e., sheet __ of __). Do not provide large size maps. A copy of a portion of a large map is acceptable. Acceptable map sources include:

- United States Coast and Geodetic Survey Charts.
- United States Geological Survey Maps.
- Other federal maps or charts available to the public.
- State or county maps.

General Drawing Requirements. A complete description of the proposed activity is required, including drawings sufficient for public notice. Detailed engineering plans and specs are not required. Drawings must meet the following requirements:

- Plans must be drawn with dark pencil or black ink on 8½" x 11" paper. Leave at least a ½" unused border area on each sheet. All drawings and writings must be clear, readable, and reproducible using standard (non-color) office copy machines. Do not duplex drawings.

- Drawings must be in black and white only. Do not use colored inks or pencils. Instead use shading, hatching, or other annotated graphic symbology.

- Drawings should not show the approval, comments, or action of any government agency.

- A title block is required for each drawing sheet (including maps). The title block must include the applicant's name, project name, project location, drawing date, drawing number (i.e., sheet __ of __), and sufficient unused space for future revision dates and a 12 digit file number.

- Drawings must have all relevant dimensions shown for each view. In addition, it is desirable that a graphic drawing scale be shown. Do not use ratio scales (i.e., 1" = 80 ') on reduced plans because ratio scaling will give inaccurate information on the reduced copy.

Plan View and Cross-Section View Drawing Requirements. Plan and elevation drawings are required showing the general and specific site location and character of all proposed activities, including the size relationship of the proposed structures to the size of the impacted waters and depth of water in the area. The drawings must include the following information:

- Plan and cross section views for each work, structure, fill, and excavation proposed.

- In tidal waters, the direction of tidal ebb and flow must be shown.

- Existing and proposed ground contours must be shown on each cross section view.

- Any existing marsh or wetland areas within the project boundaries or impacted by the work must be delineated on the plans.

- Each proposed structure, work, fill, or excavation must be clearly shown and located with respect to either a plat line or some fixed immovable object.

- Disposal areas for all dredged or fill material must be shown. Cross hatching or shading and appropriate notes must clearly show these areas.

- Any proposed or existing retaining structures (e.g. embankments, bulkheads) for dredged or fill material must be shown.

- Property boundaries and names of adjacent property owners must be shown on the plans.

- In tidal waters, contour and datum elevation references must be shown as follows:

  - The existing and proposed water depths and land elevations must be shown relative to the nearby mean low water contour or elevation.

  - The mean low water and mean high water contours must be shown on all views.

  - The directions of tidal ebb and flow must be apparent or indicated on the plans.

- In non-tidal waters, contour and datum elevation references must be shown as follows:

  - In federally navigable waters, existing and proposed water depths and land elevations must be shown relative to mean sea level.

  - In federally non-navigable waters, existing and proposed water depths and land elevations may be shown relative to the nearby ordinary high water contour, or to mean sea level.

  - In rivers and streams, the ordinary high water contour must be shown on all views. Also, the direction of flow must be shown.

  - In lakes, the normal high water level of the lake must be shown on the plans.

- For projects which encroach upon or lie adjacently to a site on which the federal government has an easement to either deposit dredged material or excavate to improve channel operations, the drawings must clearly show the extent of encroachment or indicate if none is intended.

Territorial Seas. For activities occurring in the territorial seas or ocean waters, a description of the activity's relationship to the baseline from which the territorial sea is measured must be provided.

Section 103. For Section 103 (ocean dumping) activities the application must include:

- The specific location of the proposed disposal site and its physical boundaries;
- A statement as to whether the proposed disposal site has been designated for use by the Administrator, Environmental Protection Agency, pursuant to section 102(c) of the Act;
- If the proposed disposal site has not been designated by the Administrator, Environmental Protection Agency, a description of the characteristics of the site and an explanation as to why no previously designated disposal site is feasible;
- A brief description of known dredged material discharges at the proposed disposal site;
- Existence and documented effects of other authorized disposals that have been made in the disposal area (e.g., heavy metal background reading and organic carbon content);
- An estimate of the length of time during which disposal would continue at the proposed site;
- Information on the characteristics and composition of the dredged material.

Dredging. For dredging in navigable waters of the United States, the application must include:

- The method of dredging;
- The site and plans for disposal of the dredged material;
- A description of the type, composition and quantity of the material to be dredged.

Fills and Platforms. For construction of a filled area or platform supported by piles or floats, the project description must include:

- The use of the fill or platform;
- Specific structures to be erected on the fill or platform.

Discharges. For the discharge of dredged or fill material into waters of the United States or transportation of dredged material for disposal in ocean waters, the application must include:

- The source of the material;
- The purpose of the discharge;
- A description of the type, composition and quantity of the material;
- The method of transportation and disposal of the material;
- The location of the disposal site.

Impoundment Structures. For activities involving the construction of an impoundment structure, the applicant must demonstrate that the structure complies with established State dam safety criteria or that the structure has been designed by qualified persons and independently reviewed (and modified as the review indicates) by similarly qualified persons. No specific design criteria will be prescribed nor will an independent detailed engineering review be made by the District Engineer.

Artificial Reefs. For activities involving construction or placement of an artificial reef, as defined in 33 CFR 322.2(g), in the navigable waters of the United States or in the waters overlying the outer continental shelf, the application must include provisions for siting, constructing, monitoring, and managing the reef.

c. Initial Review

The project manager, upon receipt of an application, will check to see if all necessary information has been provided. If the project manager determines that the application is incomplete, the project manager will notify the applicant what additional information is required to complete the application.

d. Public Notice

When the application is determined to be complete, a public notice will be prepared. This notice will be mailed to local, State, and federal agencies, adjacent property owners, and other interested persons or groups that have requested to be placed on the public notice mailing list. The public notice will specify a fixed number of days during which comments may be provided to the permitting and certifying agencies identified in the notice. Because of differences in State and federal review procedures, the comment period may not be the same length of time for each permitting or certifying agency.

e. Comment Review

When the comment period has ended, an assessment of all comments received will be made by the project manager. If substantive objections have been received, the applicant will be provided copies of these objections. The applicant will then be given an opportunity to attempt to resolve the concerns of the objecting parties or to submit a rebuttal. However, this is not required and the applicant may request that the District Engineer make a decision based on the application as submitted in light of the unresolved objections and with no rebuttal statement from the applicant.

f. Decision Making

After all the required State permits and certifications are issued, the project manager will begin the decision making process on the federal permit. (**Please**

note that if any of the required State or local permits or certifications are denied the COE cannot issue the federal permit.)

The decision making process involves an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest and, if appropriate, includes application of the guidelines given at Section 404(b)(1) of the Clean Water Act as promulgated by the Administrator of the Environmental Protection Agency. The benefits which reasonably may be expected to accrue from a proposal are balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal are considered, including their cumulative effects. The factors considered by the COE include conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people.

As mentioned above, every application involving the discharge of dredged or fill material into waters of the United States must be evaluated for compliance with the "404(b)(l) Guidelines" which are published at 40 CFR Part 230. This review involves an assessment of the project's impacts on the aquatic environment to determine if it is or is not in compliance with the Guidelines. The Guidelines are prejudiced against discharges of dredged or fill material into waters of the United States, including wetlands, for nonwater dependent activities. For nonwater dependent projects, the Guidelines compel the COE to place the burden of proof on applicants to conclusively demonstrate that their projects will not cause an unacceptable adverse impact to our nation's aquatic resources and that lesser damaging alternatives are not available. Even if a project is "water dependent", the Guidelines are designed to hold encroachments into aquatic areas to a minimum.

In keeping with the Guidelines and the National Environmental Policy Act (NEPA), the COE and EPA entered into a Memorandum of Agreement on mitigation. This Memorandum of Agreement requires that the COE use a sequenced approach to evaluating project alternatives. The Memorandum of Agreement specifies that, when assessing a project's impacts, the COE must first ensure that the impacts cannot be avoided (e.g., constructing the proposed facility on an upland, non-aquatic site). If the project must be located in an aquatic area to fulfill its basic purpose, and less damaging sites are not available, the COE must ensure that the project's impacts are minimized to the extent practicable taking into consideration cost, logistics, and existing technologies. Once it is determined that avoidance is not practicable and all efforts have been made to minimize the project impacts to the environment, then, and only then, compensatory mitigation may be considered to compensate for the project's unavoidable impacts.

In addition to the 404(b)(1) evaluation, an Environmental Assessment is prepared to determine if an Environmental Impact Statement is required. This is a requirement of the National Environmental Policy Act. If the project manager

determines that additional information is required to complete the 404(b)(1) evaluation, the Environmental Assessment, or the public interest review, then the project manager will notify the applicant what additional information is required. Until all necessary information is available to complete these evaluations, the COE cannot reach a decision on the permit application.

If the project has been found to be in compliance with the 404(b)(1) guidelines and the Environmental Assessment has concluded with a Finding of No Significant Impact on the human environment, then a decision document is prepared. This document is the decision maker's written evaluation of all comments and concerns expressed, how these comments were considered in the decision and why they were either rejected or accepted.

2. The General Permit Process

A *General Permit (GP) means a Department of the Army authorization that is issued on a nationwide or regional basis for a category or categories of activities.* This refers to both those permits issued by District or Division Engineers on a regional basis and to Nationwide Permits which are issued by the Chief of Engineers through publication in the Federal Register.

Regional Permits are a type of General Permit. They may be issued by a Division or District Engineer. The issuing authority will determine and add appropriate conditions to protect the public interest. When the issuing authority determines on a case-by-case basis that the concerns for the aquatic environment so indicate, the authority may exercise discretionary authority to override the Regional Permit and require an individual application and review. No Regional Permit can be issued for a period of more than five years. In South Carolina, the COE currently has authorized several Regional GPs. Three of these deal with activities in certain lakes (e.g. Lakes Murray, Marion, and Moultrie) and one covers certain activities by individuals in the critical areas of the coastal zone. The existing Regional GPs in South Carolina have very limited applicability to industrial or commercial development and therefore will not be discussed further in this section. However, at the time of this writing, the COE is working to develop one or more Regional GPs for mining activities.

Nationwide Permits (NWPs) are a type of General Permit issued by COE Headquarters on a nationwide basis. If certain terms and conditions are met, the specified activities can take place without the need for an individual or regional permit. NWPs must be certified by certain agencies in each state before they take effect in the state. By denying certification for a particular NWP, state agencies can require that activities which would otherwise have qualified for the NWP be processed under the Individual Permit process. As stated in 33 CFR 330.6(d)(2), NWPs do not apply, even if a portion of the project is not dependent on the rest of the project, when any portion of the project is subject to an enforcement action by the Corps or Environmental Protection Agency.

The NWPs are periodically reviewed, modified, or reissued by COE Headquarters. The current schedule calls for such reconsideration every five years. However, this schedule is subject to change at any time. Persons

pursuing activities under the authority of a NWP should make themselves informed of the current status and conditions of the NWP. Activities affecting waters of the United States which do not qualify for one or more GPs may require an Individual Permit. The NWPs do not obviate any State or local permit requirements nor do they apply to federal permits required by other laws or regulations. Also, note that regardless of the listed NWPs, any activity in the critical areas of the coastal zone may require a State permit.

Details regarding local processing procedures for NWPs are given in Charleston District's Regulatory Branch Standard Operating Procedure (SOP) titled "Nationwide Permits - Policies & Procedures." A copy of the SOP is included as Appendix B. The purpose of the SOP is to provide written guidance regarding the policies, interpretations, and procedures used by Charleston District regulatory personnel in the processing of requests for verification or authorization under the NWPs. The SOP helps to provide regulatory personnel, resource agencies, and the public with a framework that will provide predictability and consistency in the NWP process. The key elements of the SOP are presented below.

A key element of the SOP is the establishment of allowable impact thresholds with the goal that these will be used as project design criteria. Appropriate application of these criteria should minimize uncertainty in the NWP approval process and allow expeditious review of applications. However, nothing in the SOP constitutes a promise or guarantee that a project which satisfies the criteria or guidelines will not be subject to the exertion of discretionary authority. The Corps has a responsibility to consider each project on a case-by-case basis and may determine in any specific situation that authorization under a NWP should be modified, suspended, or revoked.

a. Notification Requirements

Before doing any work requiring authorization under a NWP for which notification is required, the prospective permittee must submit written notification to the Army Corps District Engineer in accordance with the notification procedures. Projects which qualify under one or more NWPs, and which do not require notification, other authorizations, or other permits may proceed without notification as long as the project is conducted in complete accordance with the terms and conditions of the NWPs. All notifications must be in writing and must be clear, readable, and reproducible using standard, non-color, office copy machines. All necessary signatures must be originals. Copied or faxed signatures may not be accepted except in unusual or emergency situations and if allowed must be followed up by submittal of originals.

b. Initial Review

Upon receipt of a notification the Corps will review the notification and determine which of the following actions is appropriate.

(1) Incomplete Notifications. For notifications with incomplete information, the applicant will be instructed what additional items are required to make the notification complete.

(2) No Distribution. For requests for verification involving NWPs 1-4, 6, 8-10, 15, 20, 24, 25, or 36 no public notice or other distribution is required. The COE will review the notification and will notify the prospective permittee whether or not the proposed work appears to meet the terms and conditions of the NWPs.

(3) Distribution. For notifications involving NWPs 5, 7, 12-14, 16-19, 21-23, 26-35, and 37-40 the Charleston District has developed local coordination procedures with State and federal agencies. Under these procedures a prospective permittee submits the notification directly to the COE. After review, the COE will forward copies of the notification to the appropriate agencies requesting their review within a specified time period.

c. The Decision Period

Except as explained below, for NWPs which require notification, an applicant may presume that his project qualifies for the NWP unless otherwise notified by the Corps within a 30 day period following receipt of the notification by the District Engineer. However, the 30 day period allowed for the District Engineer's review does not begin until receipt by the District Engineer of a complete notification. The applicant may contact the project manager at any time to determine the status of the notification review.

Activities located in the critical areas of the coastal zone under any NWP, except NWPs 16 and 17, do not require activity specific State Water Quality or Coastal Zone Consistency Certifications. However, note that a State permit may be required.

Activities located in any area of South Carolina under NWPs 16 or 17 require an activity specific State Water Quality Certification.

Activities located in any area of South Carolina under NWPs 5, 7, 12-14, 21, 22, 34, 37, or 38, do not require activity specific State Water Quality or Coastal Zone Consistency Certifications.

Activities located inland of the coastal zone with one acre or more of impacts to waters of the United States under NWP 26, require an activity specific State Water Quality Certification.

Activities located in the non-critical area of the South Carolina Coastal Zone under NWPs 18, 19, 23, 26-33, 35, or 40, require an activity specific State Coastal Zone Management Certification.

If the Corps notifies the applicant that the notification is incomplete, a new 30 day period will commence upon receipt of the revised notification. If a wetland delineation is required, the 30 day period will not start until the wetland delineation has been completed. The prospective permittee may not proceed with the proposed activity before expiration of the 30 day period unless otherwise notified by the District Engineer. If the Corps fails to act within the 30 day period,

the District Engineer may use the procedures of 33 CFR 330.5 in order to modify, suspend, or revoke the NWP authorization.

d. Review of Notifications

The terms and conditions of certain NWPs require the Corps to review the proposed activity before the NWP authorizes its construction. However, the Corps has the authority to review any activity authorized by NWP to determine whether the activity complies with the NWP. The Corps will review all notifications and determine if the individual and cumulative adverse environmental effects are minimal.

Actions for minimizing the adverse effects of discharges are given in the 404(b)(1) guidelines at 40 CFR Part 230, Subpart H. Additional guidance given in the discussion section of 33 CFR part 330 states that interpretation of what is considered minimal is left to the discretion of the District Engineer. The discussion further states that what is considered minimal can vary from state to state, county to county, and watershed to watershed. The factors used in determining what is minimal must be based on the environmental setting of the district and the project. Review of notifications includes the following steps:

(1) Consideration of State and Local Permitting Authorities. The Corps will deny without prejudice any activity which has been denied by any State or local authority.

(2) Consideration of Comments. The Corps will consider any comments received concerning the proposed activity's compliance with the terms and conditions of a Nationwide Permit or the need for mitigation to reduce the project's adverse environmental effects to the minimal level. The Corps will fully consider agency comments received within the time frame specified in the local procedures, but need not provide response to the resource agency. The Corps will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered.

(3) Consideration of Discretionary Authority. As stated in 33 CFR 330.1(d) and 330.4(e), District Engineers have been delegated a discretionary authority to suspend, modify, or revoke individual authorizations under a NWP. This authority may be used to condition or restrict the applicability of a NWP for cases where the Corps has concerns for the aquatic environment under the Clean Water Act Section 404(b)(1) Guidelines or for any factor of the public interest. When deciding whether to exercise discretionary authority to modify, suspend, or revoke a case specific activity's authorization under a NWP, the Corps shall follow the procedures and guidelines given in 33 CFR Part 330.5.

e. Decision Options

The decision options following the notification review are as follows.

(1) Authorize Without Modification. If the Corps determines that the activity meets the terms and conditions of the NWP, and that the individual and cumulative adverse impacts are minimal, and that no additional conditions are necessary, then the Corps will notify the permittee that he/she may proceed in accordance with the provisions of the NWP.

(2) Modify the NWP Authorization. The Corps may add activity specific conditions to ensure that the activity complies with the terms and conditions of the NWP and that the adverse impacts on the aquatic environment and other aspects of the public interest are individually and cumulatively minimal.

(3) Require Mitigation. If the Corps determines that the adverse effects are more than minimal, the Corps may notify the prospective permittee that measures may be proposed to mitigate the loss of aquatic sites, including wetlands, to reduce the adverse impacts to minimal. The prospective permittee may elect to propose mitigation with the original notification. The Corps will consider any proposed mitigation when deciding if the impacts are minimal. The Corps shall add activity specific conditions to ensure that the mitigation will be accomplished. If sufficient mitigation cannot be developed to reduce the adverse environmental effects to the minimal level, the Corps will not allow authorization under the NWP and will instruct the prospective permittee on procedures to seek authorization under an Individual Permit.

As a general policy, the Charleston District Regulatory Branch will routinely conclude that notifications involving total adverse ecological effects of more than one acre will cause more than minimal adverse effects and therefore cannot be authorized under a NWP unless sufficient compensatory mitigation is submitted to reduce the adverse effects to the minimal level. Notifications involving impacts of less than one acre will be reviewed on an individual basis to determine whether or not the impacts are at the minimal level. Notwithstanding the above, not all activities affecting more than one acre will cause more than a minimal adverse effect. Therefore, each proposed activity must be evaluated on a case-by-case basis. The Council on Environmental Quality defined at 40 CFR Part 1508.20 that mitigation includes avoiding the impact, minimizing the impact, rectifying the impact, reducing or eliminating the impact over time, and compensating for the impact by replacing or providing substitute resources or environments. Additionally, there may be cases where the required mitigation will be in keeping with the guidance given in 33 CFR Part 330, Appendix A (c)(13)(f). Normally, before compensatory mitigation is considered, other categories of mitigation should be evaluated.

State Approved Mitigation Plan. In determining if a proposed compensatory mitigation plan which has been approved by the State permitting agency is sufficient to reduce the adverse ecological effects to the minimal level, the Corps will use the following guidelines.

(a) If there were no written concerns or objections received from any resource agency, then the Corps will usually consider the mitigation to be sufficient.

(b) If written concerns or objections were received from any resource agency in response to the Public Notice, then the Corps will contact that agency to determine if the State approved mitigation plan resolves the agency's concerns.

If the agency states that the concerns have been satisfied, then the Corps will usually consider the mitigation to be sufficient. If the agency states that the concerns have not been satisfied then the Corps will conduct an evaluation of the mitigation plan using the criteria given in Charleston District's SOP on Compensatory Mitigation (included as Appendix C). Following this evaluation the Corps will decide whether or not the concerns of the resource agency have sufficient merit to modify, condition, or deny the proposed mitigation plan. If the Corps determines that the agency's concerns do not have sufficient merit then the Corps may accept the mitigation plan. The Corps will document the evaluation and factors considered in making this determination in the record.

State Approval Not Applicable. In determining if a proposed compensatory mitigation plan, for which State approval has been waived or is not required, is sufficient to reduce the adverse ecological effects to the minimal level, the Corps will use the criteria given in Charleston District's SOP on Compensatory Mitigation.

(4) Require an Individual Permit Application. If the adverse effects are more than minimal and sufficient mitigation is not provided to reduce the adverse environmental effects to the minimal level, the Corps will not allow authorization under the NWP and will instruct the prospective permittee on procedures to seek authorization under an Individual Permit.

f. Thresholds

The following categories of activities will routinely be considered to cause more than minimal adverse ecological effects which cannot be reduced to a minimal level through compensatory mitigation. Therefore, notifications involving these categories of activities will have a greater likelihood than normal of being subject to the exertion of discretionary authority to require an Individual Permit. However, the Corps must consider each notification on a case specific basis and these restrictions are intended to be used only as guidelines.

(1) Projects with total adverse ecological effects which exceed five acres or 10% of the total project area, whichever is greater.

(2) Projects which affect certain special categories of waters of the United States specified in Charleston District's SOP on Nationwide Permits. (See Appendix B)

g. Compensatory Mitigation Plans

As previously stated, authorizations for projects which have more than minimal adverse effects will require mitigation. The mitigation must be sufficient to reduce the adverse effects to the minimal level. When a compensatory mitigation plan for adverse ecological effects is required for a project, the plan will normally be considered acceptable if it meets the criteria stated in Charleston District's SOP on Compensatory Mitigation.

h. Delineations

For some NWPs, the notification must include a complete delineation of special aquatic sites. Delineations must be in accordance with the current method required by the Corps. The applicant may ask the Corps to delineate the aquatic sites. There may be some delay if the Corps does the delineation. Furthermore, the 30 day review period will not start until the wetland delineation has been completed. *Charleston District has defined a completed delineation to mean a delineation that has been verified by the Corps.* For small projects with minimal or near minimal impact to special aquatic sites, the project manager has the discretion to accept an approximate delineation as the verified delineation. Applicants are responsible for providing information with their submittal that evidences a delineation has been conducted and the delineation has been verified by the Corps. All delineations of aquatic sites must be shown on the plans submitted for notification review.

Charleston District policy is that a verified delineation is a delineation which the Corps has approved as a true or acceptable representation of the limits and locations of all indicated aquatic sites, including wetlands, within the specified boundaries.

i. Restoration Plans

When restoration plans are required (e.g. NWPs 33 or 38) they must generally conform with the guidelines, drawing requirements, etc., given for mitigation plans in the Charleston District's SOP on Compensatory Mitigation.

j. Other Relevant Issues

The following topics, which are discussed in 33 CFR Parts 320-330, and in Charleston District's SOP on NWPs, are considered particularly noteworthy and are thus presented here for emphasis.

(1) Piecemealing. In its most elementary form, piecemealing involves the bit-by-bit alteration of a given area by a series of minor authorizations rather than by comprehensive master planning. As pointed out at 33 CFR 320.4(b)(3), while a particular alteration may constitute a minor change, the cumulative effect of a

number of changes can result in a major impairment of the resource. In order to discourage piecemealing the following policy will be used for all NWP authorizations. Once a project avails itself of a NWP authorization, additional NWP authorizations for work which is not clearly shown on the original permit plans will be viewed unfavorably. This position will stand unless a convincing argument can be presented that the additional work is totally unrelated to that which is already permitted and that it was unforeseeable at the time of the prior authorization. It is recognized that there may be an occasional unusual case where the application of this policy may be unreasonable. In those instances, the Corps will coordinate with the resource agencies to obtain their views.

(2) Real Estate Subdivisions. The policy on piecemealing stated above also applies to any real estate subdivision created or subdivided after October 5, 1984. This means that if a developer obtains one or more NWPs for the original subdivision development, then additional NWP applications from future lot owners, builders, etc., should be viewed unfavorably and discretionary authority should routinely be exerted to require an Individual Permit. As stated above, it is recognized that there may be an occasional unusual case where the application of this policy may be unreasonable. Department of the Army regulations allow the District Engineer some discretion in this area but require that his findings be in writing.

The term real estate subdivision is defined at 33 CFR 330, Appendix A(B)(26) to include circumstances where a landowner or developer divides a tract of land into smaller parcels for the purpose of selling, conveying, transferring, leasing, or developing said parcels. This includes the entire area of a residential, commercial or other subdivision, including all parcels and parts thereof.

Subdivisions or parcels for which a written exemption determination has been reached in accordance with the procedures specified in 33 CFR 330, Appendix A(B)(26) will not be subject to the above stated restrictions. However, each single and complete project within the subdivision shall be subject to the stated piecemealing restrictions. This means that even if an exemption is granted for the subdivision, an individual owner or developer may not piecemeal his property or project.

The underlying purpose for the above subdivision policy is to encourage the original developer to prepare a comprehensive plan which considers all aquatic areas and follows the recognized avoid, minimize, compensate sequence. It is generally not acceptable for a developer to layout a subdivision such that numerous parcel or lot owners will subsequently be required to obtain NWPs to make use of their property. However, it is equally unacceptable for the District Engineer to limit a landowner owning vast acreage of contiguous parcels to less than 10 acres of wetland impacts under the NWP program. Hence the exemption allowances.

(3) Combining NWPs and Individual Permits. 33 CFR 330.6(d) states that subject to the following qualifications, portions of a larger project may proceed under the authority of the NWPs while the Corps evaluates an Individual Permit

application for other portions of the same project, but only if the portions of the project qualifying for NWP authorization would have independent utility and are able to function or meet their purpose independent of the total project. When the functioning or usefulness of a portion of the total project qualifying for a NWP is dependent on the remainder of the project, such that its construction and use would not be fully justified even if the Corps were to deny the Individual Permit, the NWP does not apply and all portions of the project must be evaluated as part of the Individual Permit process.

When a portion of a larger project is authorized to proceed under a NWP, it is with the understanding that its construction will in no way prejudice the decision on the Individual Permit for the rest of the project. Furthermore, the Individual Permit documentation must include an analysis of the impacts of the entire project, including related activities authorized by a NWP.

(4) Multiple NWPs. As stated in 33 CFR 330.6(d), two or more different NWPs can be combined to authorize a "single and complete project." However, the same NWP cannot be used more than once for a single and complete project.

The term *single and complete project is defined at 33 CFR 330.2 to mean the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers.* For example, if construction of a residential development affects several different areas of a headwater or isolated water, or several different headwaters or isolated waters, the cumulative total of all filled areas should be the basis for deciding whether or not the project will be covered by a NWP. For linear projects, the "single and complete project" (i.e. single and complete crossing) will apply to each crossing of a separate water of the United States (i.e. single waterbody) at that location; except that for linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies.

E. GRANDFATHER NATIONWIDE PERMITS

The following activities were permitted by NWPs issued on July 19, 1977, and unless modified do not require further permitting:

1. Discharges of dredged or fill material into waters of the United States outside the limits of navigable waters of the United States that occurred before the phasein dates which began July 25, 1975, and extended section 404 jurisdiction to all waters of the United States. (These phasein dates are: After July 25, 1975, discharges into navigable waters of the United States and adjacent wetlands; after September 1, 1976, discharges into navigable waters of the United States and their primary tributaries, including adjacent wetlands, and into natural lakes, greater than five acres in surface area; and after July 1, 1977, discharges into all waters of the United States). (Section 404)

2. Structures or work completed before December 18, 1968, or in waterbodies over which the District Engineer had not asserted jurisdiction at the time the activity occurred provided, in both instances, there is no interference with navigation. (Section 10)

F. THE NATIONWIDE PERMITS AND REGIONAL CONDITIONS

At the time of this writing the existing NWPs, given in 33 CFR Part 330, and applicable regional conditions are worded as shown below. All activities authorized under one or more NWPs must meet the terms and conditions given in 33 CFR 330 and, where required, comply with the notification procedures and any applicable regional conditions. Persons may contact the Corps of Engineers for additional information regarding the terms, conditions, and procedures applicable to these NWPs.

1. Aids to Navigation. The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard. (See 33 CFR Part 66, Chapter I, Subchapter C). (Section 10)

2. Structures in Artificial Canals. Structures constructed in artificial canals within principally residential developments where the connection of the canal to a navigable water of the United States has been previously authorized (see 33 CFR 322.5(g)). (Section 10)

3. Maintenance. The repair, rehabilitation, or replacement of any previously authorized, currently serviceable, structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area including those due to changes in materials, construction techniques, or current construction codes or safety standards which are necessary to make repair, rehabilitation, or replacement are permitted, provided the environmental impacts resulting from such repair, rehabilitation, or replacement are minimal. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction. This Nationwide Permit authorizes the repair, rehabilitation, or replacement of those structures destroyed by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced or under contract to commence within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the District Engineer, provided the permittee can demonstrate funding, contract, or other similar delays. Maintenance dredging and beach restoration are not authorized by this Nationwide Permit. (Sections 10 and 404)

4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities. Fish and wildlife harvesting devices and activities such as pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, clam and oyster digging; and small fish attraction devices such as open water fish concentrators (e.g., sea kites, etc.). This Nationwide Permit authorizes shellfish seeding provided this activity does not occur in wetlands or vegetated shallows. This Nationwide Permit does not authorize artificial reefs or impoundments and semi-impoundments of waters of the United States for the culture or holding of motile species such as lobster. (Sections 10 and 404)

5. Scientific Measurement Devices. Staff gauges, tide gages, water recording devices, water quality testing and improvement devices and similar structures. Small weirs and flumes constructed primarily to record water quantity and velocity are also authorized provided the discharge is limited to 25 cubic yards and further for discharges of 10 to 25 cubic yards provided the permittee notifies the District Engineer in accordance with "Notification" general condition. (Sections 10 and 404)

6. Survey Activities. Survey activities including core sampling, seismic exploratory operations, and plugging of seismic shot holes and other exploratory-type bore holes. Drilling and the discharge of excavated material from test wells for oil and gas exploration is not authorized by this Nationwide Permit; the plugging of such wells is authorized. Fill placed for roads, pads and other similar activities is not authorized by this Nationwide Permit. The discharge of drilling muds and cuttings may require a permit under Section 402 of the Clean Water Act. (Sections 10 and 404)

7. Outfall Structures. Activities related to construction of outfall structures and associated intake structures where the effluent from the outfall is authorized, conditionally authorized, or specifically exempted, or are otherwise in compliance with regulations issued under the National Pollutant Discharge Elimination System program (Section 402 of the Clean Water Act), provided that the Nationwide Permittee notifies the District Engineer in accordance with the "Notification" general condition. (Also see 33 CFR 330.1(e)). Intake structures per se are not included - only those directly associated with an outfall structure. (Sections 10 and 404)

Regional Note. *Webster defines the word "related" to mean that a logical or causal connection has been shown or established.* Therefore, the term *related to construction of outfall structures is interpreted by the Charleston District Corps of Engineers to mean that such a connection has been established between some aspect of the overall project and the construction of the outfall structure.* For example, if the project requires construction of roads, pump stations, bulkheads, fences, etc., which are logically or causally connected to the construction of the outfall structure itself, then such work is also a candidate for authorization under NWP 7. However, the Corps must review the proposed work under the notification process to verify that the individual and cumulative adverse effects will be minimal, that the activity is not contrary to the public interest, and that the activity complies with the terms and conditions of the Nationwide Permit.

When considering whether or not the net adverse effects have been minimized and whether outfall relocations are in the public interest, the Charleston District will generally give substantial deference to the outfall relocations as proposed if such relocations are being conducted at the request or direction of the South Carolina Department of Health and Environmental Control. (This note extracted from RB-SOP-93-01.)

8. Oil and Gas Structures. Structures for the exploration, production, and transportation of oil, gas, and minerals on the outer continental shelf within areas leased for such purposes by the Department of the Interior, Minerals Management Service. Such structures shall not be placed within the limits of any designated shipping safety fairway or traffic separation scheme, except temporary anchors that comply with the fairway regulations in 33 CFR 322.5(l). (Where such limits have not been designated, or where changes are anticipated, District Engineers will consider asserting discretionary authority in accordance with 33 CFR 330.4(e) and will also review such proposals to ensure they comply with the provisions of the fairway regulations in 33 CFR 322.5(1)). Such structures will not be placed in established danger zones or restricted areas as designated in 33 CFR Part 334: nor will such structures be permitted in Environmental Protection Agency or Corps designated dredged material disposal areas. (Section 10)

9. Structures in Fleeting and Anchorage Areas. Structures, buoys, floats, and other devices placed within anchorage or fleeting areas to facilitate moorage of vessels where such areas have been established for that purpose by the U.S. Coast Guard. (Section 10)

10. Mooring Buoys. Non-commercial, single-boat, mooring buoys. (Section 10)

11. Temporary Recreational Structures. Temporary buoys, markers, small floating docks, and similar structures placed for recreational use during specific events such as water skiing competitions and boat races or seasonal use provided that such structures are removed within 30 days after use has been discontinued. At Corps of Engineers reservoirs, the reservoir manager must approve each buoy or marker individually. (Section 10)

Regional Note. For activities in Corps' reservoirs requiring notification under NWP 11, the prospective permittee must obtain the approval of the reservoir manager. The prospective permittee need not contact the District Engineer provided the project complies with the terms and conditions of the NWP.

12. Utility Line Backfill and Bedding. Discharges of material for backfill or bedding for utility lines, including outfall and intake structures, provided there is no change in preconstruction contours. *A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquefiable, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone and telegraph messages, and radio and television communication.* The term "utility line" does not include activities which drain a water of the United States, such as drainage tile, however, it does

apply to pipes conveying drainage from another area. Material resulting from trench excavation may be temporarily sidecast (up to three months) into waters of the United States provided that the material is not placed in such a manner that it is dispersed by currents or other forces. The District Engineer may extend the period of temporary side-casting up to 180 days, where appropriate. The area of waters of the United States that is disturbed must be limited to the minimum necessary to construct the utility line. In wetlands, the top 6" to 12" of the trench should generally be backfilled with topsoil from the trench. Excess material must be removed to upland areas immediately upon completion of construction. Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line. The utility line itself will require a Section 10 permit if in navigable waters of the United States. (See 33 CFR Part 322). (Section 404)

Regional Condition. The Nationwide Permit authorizes only a single crossing of a waterbody and/or wetland and such crossing cannot run parallel with the wetland system. The permittee must take appropriate erosion control measures to prevent siltation of the adjacent wetlands.

13. Bank Stabilization. Bank stabilization activities necessary for erosion prevention provided:

a. No material is placed in excess of the minimum needed for erosion protection;

b. The bank stabilization activity is less than 500 feet in length;

c. The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark or the high tide line;

d. No material is placed in any special aquatic site, including wetlands;

e. No material is of the type or is placed in any location or in any manner so as to impair surface water flow into or out of any wetland area;

f. No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and,

g. The activity is part of a single and complete project.

Bank stabilization activities in excess of 500 feet in length or greater than an average of one cubic yard per running foot may be authorized if the permittee notifies the District Engineer in accordance with the "Notification" general condition and the District Engineer determines the activity complies with the other terms and conditions of the Nationwide Permit and the adverse environmental impacts are minimal both individually and cumulatively. (Sections 10 and 404)

Regional Condition. The permittee must provide the District Engineer, Charleston District with *notification* in accordance with 33 CFR 330.1(e), before commencing work on any bank stabilization activity in South Carolina that would be located adjacent to an authorized federal navigation project. These federal navigation areas include Adams Creek, Savannah River, Jeremy and Town Creek at McClellanville, Village Creek at Beaufort, the Charleston Harbor Navigation Project (to include the federal navigation channels in Shipyard River, Wando River, Town Creek, and channels at the Naval Weapons Station), Georgetown Harbor, Little River Inlet, Murrells Inlet, Main Creek at Murrells Inlet, Port Royal Harbor, Waccamaw River, and the Atlantic Intracoastal Waterway.

14. Road Crossing. Fills for roads crossing waters of the United States (including wetlands and other special aquatic sites) provided:

a. The width of the fill is limited to the minimum necessary for the actual crossing;

b. The fill placed in waters of the United States is limited to a filled area of no more than one-third acre. Furthermore, no more than a total of 200 linear feet of the fill for the roadway can occur in special aquatic sites, including wetlands;

c. The crossing is culverted, bridged or otherwise designed to prevent the restriction of, and to withstand, expected high flows and tidal flows, and to prevent the restriction of low flows and the movement of aquatic organisms;

d. The crossing, including all attendant features, both temporary and permanent, is part of a single and complete project for crossing of a water of the United States; and,

e. For fills in special aquatic sites, including wetlands, the permittee notifies the District Engineer in accordance with the "Notification" general condition. The notification must also include a delineation of affected special aquatic sites, including wetlands.

Some road fills may be eligible for an exemption from the need for a Section 404 permit altogether (see 33 CFR 323.4). Also, where local circumstances indicate the need, district engineers will define the term "expected high flows" for the purpose of establishing applicability of this Nationwide Permit. (Sections 10 and 404)

Regional Condition. That the use of this permit is prohibited in waters that the South Carolina Department of Health and Environmental Control has classified as Outstanding Resource Waters. Additionally, the use of this permit is limited to one crossing per project provided no other permits (Nationwide or otherwise) are required to develop the project site, unless waived by the South Carolina Department of Health and Environmental Control. The permittee must take

appropriate erosion control measures to prevent siltation of the adjacent wetlands.

15. U.S. Coast Guard Approved Bridges. Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the United States, including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills provided such discharges have been authorized by the U.S. Coast Guard as part of the bridge permit. Causeways and approach fills are not included in this Nationwide Permit and will require an Individual or Regional Section 404 permit. (Section 404)

16. Return Water From Upland Contained Disposal Areas. Return water from an upland, contained dredged material disposal area. The dredging itself requires a Section 10 permit if located in navigable waters of the United States. The return water from a contained disposal area is administratively defined as a discharge of dredged material by 33 CFR 323.2(d) even though the disposal itself occurs on the upland and thus does not require a Section 404 permit. This Nationwide Permit satisfies the technical requirement for a Section 404 permit for the return water where the quality of the return water is controlled by the state through the Section 401 certification procedures. (Section 404)

Regional Note. An activity specific Water Quality Certification is required. To apply for certification submit notification to the COE.

17. Hydropower Projects. Discharges of dredged or fill material associated with (a) small hydropower projects at existing reservoirs where the project, which includes the fill, is licensed by the Federal Energy Regulatory Commission under the Federal Power Act of 1920, as amended; and has a total generating capacity of not more than 5000 KW; and the permittee notifies the District Engineer in accordance with the "Notification" general condition; or (b) hydropower projects for which the Federal Energy Regulatory Commission has granted an exemption from licensing pursuant to Section 408 of the Energy Security Act of 1980 (16 U.S.C. 2705 and 2708) and Section 30 of the Federal Power Act, as amended; provided the permittee notifies the District Engineer in accordance with the "Notification" general condition. (Section 404)

Regional Note. An activity specific Water Quality Certification is required. To apply for certification submit notification to the COE.

18. Minor Discharges. Minor discharges of dredged or fill material into all waters of the United States provided:

a. The discharge does not exceed 25 cubic yards;

b. The discharge will not cause the loss of more than one-tenth acre of a special aquatic site, including wetlands. For the purposes of this Nationwide Permit, the acreage limitation includes the filled area plus special aquatic sites that are adversely affected by flooding and special

aquatic sites that are drained so that they would no longer be a water of the United States as a result of the project;

c. If the discharge exceeds 10 cubic yards or the discharge is in a special aquatic site, including wetlands, the permittee notifies the District Engineer in accordance with the "Notification" general condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands. (Also see 33 CFR 330.1(e)); and

d. The discharge, including all attendant features, both temporary and permanent, is part of a single and complete project and is not placed for the purpose of stream diversion. (Sections 10 and 404)

Regional Note. Notification under NWP 18 is required only if:
a. the discharge exceeds 10 cubic yards or;
b. the project is in a wetland or other special aquatic site or;
c. the project is in the non-critical areas of the coastal zone.

19. Minor Dredging. Dredging of no more than 25 cubic yards below the plane of the ordinary high water mark or the mean high water mark from navigable waters of the United States as part of a single and complete project. This Nationwide Permit does not authorize the dredging or degradation through siltation of coral reefs, submerged aquatic vegetation, anadromous fish spawning areas, or wetlands, or the connection of canals or other artificial waterways to navigable waters of the United States (see Section 33 CFR 322.5(g)). (Section 10)

Regional Note. For activities located in the non-critical areas of the coastal zone, an activity specific Coastal Zone Certification is required. To apply for certification submit notification to the COE.

20. Oil Spill Cleanup. Activities required for the containment and cleanup of oil and hazardous substances which are subject to the National Oil and Hazardous Substances Pollution Contingency Plan, (40 CFR Part 300), provided that the work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR 112.3 and any existing state contingency plan and provided that the Regional Response Team (if one exists in the area) concurs with the proposed containment and cleanup action. (Sections 10 and 404)

21. Surface Coal Mining Activities. Activities associated with surface coal mining activities provided they are authorized by the Department of the Interior, Office of Surface Mining, or by states with approved programs under Title V of the Surface Mining Control and Reclamation Act of 1977 and provided the permittee notifies the District Engineer in accordance with the "Notification" general condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands. (Also see 33 CFR 330.1(e)). (Sections 10 and 404)

22. Removal of Vessels. Temporary structures or minor discharges of dredged or fill material required for the removal of wrecked, abandoned, or disabled vessels, or the removal of man-made obstructions to navigation. This Nationwide Permit does not authorize the removal of vessels listed or determined eligible for listing on the National Register of Historic Places unless the District Engineer is notified and indicates that there is compliance with the "Historic Properties" general condition. This Nationwide Permit does not authorize maintenance dredging, shoal removal, or river bank snagging. Vessel disposal in waters of the United States may need a permit from the Environmental Protection Agency (see 40 CFR 229.3). (Sections 10 and 404)

23. Approved Categorical Exclusions. Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another federal agency or department where that agency or department has determined, pursuant to the Council on Environmental Quality Regulation for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Part 1500 et seq.), that the activity, work, or discharge is categorically excluded from environmental documentation because it is included within a category of actions which neither individually nor cumulatively has a significant effect on the human environment, and the Office of the Chief of Engineers (ATTN: CECW-OR) has been furnished notice of the agency's or department's application for the categorical exclusion and concurs with that determination. Prior to approval for purposes of this Nationwide Permit of any agency's categorical exclusions, the Chief of Engineers will solicit public comment. In addressing these comments, the Chief of Engineers may require certain conditions for authorization of an agency's categorical exclusions under this Nationwide Permit. (Sections 10 and 404)

Regional Note. For activities located in the non-critical areas of the coastal zone, an activity specific Coastal Zone Certification is required. To apply for certification submit notification to the COE. In addition, certain NWP 23 activities which fall under the Federal Highway Administration categorical exclusions require notification. As stated in RGL 87-10, those Federal Highway Administration activities which require notification are the activities occurring under paragraphs (c)(3), (c)(7), (c)(9), (c)(12) and all (d) paragraphs of 49 CFR Part 771.117 (published 27 Nov. 1987). An extracted listing of these paragraphs is provided in RB-SOP-93-01. The Federal Highway Administration or local transportation agency to be funded by the Federal Highway Administration should contact the Corps to review the project proposal to ensure that the proposed activities would have only minimal adverse individual and cumulative impacts on the aquatic environment.

24. State Administered Section 404 Program. Any activity permitted by a state administering its own Section 404 permit program pursuant to 33 U.S.C. 1344(g)-(l) is permitted pursuant to Section 10 of the Rivers and Harbors Act of 1899. Those activities which do not involve a Section 404 State Permit are not included in this Nationwide Permit, but certain structures will be exempted by Sec. 154 of PL 94-587, 90 Stat. 2917 (33 U.S.C. 59l) (see 33 CFR 322.3(a)(2)). (Section 10)

Regional Condition. That the State administered 404 program must be consistent with the Coastal Zone Management Program.

25. Structural Discharge. Discharges of material such as concrete, sand, rock, etc. into tightly sealed forms or cells where the material will be used as a structural member for standard pile supported structures, such as piers and docks; and for linear projects, such as bridges, transmission line footings, and walkways. The NWP does not authorize filled structural members that would support buildings, homes, parking areas, storage areas and other such structures. Housepads or other building pads are also not included in this Nationwide Permit. The structure itself may require a Section 10 permit if located in navigable waters of the United States. (Section 404)

26. Headwaters and Isolated Waters Discharges. Discharges of dredged or fill material into headwaters and isolated waters provided:

a. The discharge does not cause the loss of more than 10 acres of waters of the United States;

b. The permittee notifies the District Engineer if the discharge would cause the loss of waters of the United States greater than one acre in accordance with the "Notification" general condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands. (Also see 33 CFR 330.1(e)); and

c. The discharge, including all attendant features, both temporary and permanent, is part of a single and complete project.

For the purposes of this Nationwide Permit, the acreage of loss of waters of the United States includes the filled area plus waters of the United States that are adversely affected by flooding, excavation or drainage as a result of the project. The 10 acre and one acre limits of NWP 26 are absolute, and cannot be increased by any mitigation plan offered by the applicant or required by the District Engineer.

Subdivisions. For any real estate subdivision created or subdivided after October 5, 1984, a notification pursuant to subsection (b) of this Nationwide Permit is required for any discharge which would cause the aggregate total loss of waters of the United States for the entire subdivision to exceed one acre. Any discharge in any real estate subdivision which would cause the aggregate total loss of waters of the United States in the subdivision to exceed 10 acres is not authorized by this Nationwide Permit; unless the District Engineer exempts a particular subdivision or parcel by making a written determination that:

(1) the individual and cumulative adverse environmental effects would be minimal and the property owner had, after October 5, 1984, but prior to January 21, 1992, committed substantial resources in reliance on NWP

26 with regard to a subdivision, in circumstances where it would be inequitable to frustrate his investment-backed expectations, or
(2) that the individual and cumulative adverse environmental effects would be minimal, high quality wetlands would not be adversely affected, and there would be an overall benefit to the aquatic environment.

Once the exemption is established for a subdivision, subsequent lot development by individual property owners may proceed using NWP 26. For purposes of NWP 26, the term "real estate subdivision" shall be interpreted to include circumstances where a landowner or developer divides a tract of land into smaller parcels for the purpose of selling, conveying, transferring, leasing, or developing said parcels. This would include the entire area of a residential, commercial or other real estate subdivision, including all parcels and parts thereof. (Section 404)

Regional Note. In the non-critical areas of the coastal zone, a project specific Coastal Zone Consistency Certification is required. For activities located inland of the Coastal Zone which impact one acre or more of waters of the United States, an activity specific Water Quality Certification is required. To apply for certification submit notification to the COE. Refer to RB-SOP-93-01 for additional local policy and interpretations.

27. Wetland and Riparian Restoration and Creation Activities. Activities in waters of the United States associated with the restoration of altered and degraded non-tidal wetlands and creation of wetlands on private lands in accordance with the terms and conditions of a binding wetland restoration or creation agreement between the landowner and the U.S. Fish and Wildlife Service (USFWS) or the U.S. Department of Agriculture - Natural Resources Conservation Service (formerly Soil Conservation Service) or activities associated with the restoration of altered and degraded non-tidal wetlands, riparian areas and creation of wetlands and riparian areas on U.S. Forest Service and Bureau of Land Management lands, federal surplus lands (e.g., military lands proposed for disposal), Farmers Home Administration inventory properties, and Resolution Trust Corporation inventory properties that are under federal control prior to being transferred to the private sector. Such activities include, but are not limited to: installation and maintenance of small water control structures, dikes, and berms; backfilling of existing drainage ditches; removal of existing drainage structures; construction of small nesting islands; and other related activities. This Nationwide Permit applies to restoration projects that serve the purpose of restoring "natural" wetland hydrology, vegetation, and function to altered and degraded non-tidal wetlands and "natural" functions of riparian areas. For agreement restoration and creation projects only, this Nationwide Permit also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its prior condition and use (i.e., prior to restoration under the agreement) within five years after expiration of the limited term wetland restoration or creation agreement, even if the discharge occurs after this Nationwide Permit expires. The prior condition will be documented in the original agreement, and the determination of return to prior conditions will be made by the federal agency executing the agreement. Once

an area is reverted back to its prior physical condition, it will be subject to whatever the Corps regulatory requirements will be at that future date. This Nationwide Permit does not authorize the conversion of natural wetlands to another aquatic use, such as creation of waterfowl impoundments where a forested wetland previously existed. (Sections 10 and 404)

Regional Note. For activities located in the non-critical areas of the coastal zone, an activity specific Coastal Zone Certification is required. To apply for certification submit notification to the COE.

28. Modifications of Existing Marinas. Reconfigurations of existing docking facilities within an authorized marina area. No dredging, additional slips or dock spaces, or expansion of any kind within waters of the United States are authorized by this Nationwide Permit. (Section 10)

Regional Note. For activities located in the non-critical areas of the coastal zone, an activity specific Coastal Zone Certification is required. To apply for certification submit notification to the COE.

29 - 31. Reserved.

32. Completed Enforcement Actions. Any structure, work or discharge of dredged or fill material undertaken in accordance with, or remaining in place in compliance with, the terms of a final Federal court decision, consent decree, or settlement agreement in an enforcement action brought by the United States under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899. (Sections 10 and 404)

Regional Note. For activities located in the non-critical areas of the coastal zone, an activity specific Coastal Zone Certification is required. To apply for certification submit notification to the COE.

33. Temporary Construction, Access and Dewatering. Temporary structures and discharges, including cofferdams, necessary for construction activities or access fills or dewatering of construction sites; provided the associated permanent activity was previously authorized by the Corps of Engineers or the U.S. Coast Guard, or for bridge construction activities not subject to Federal regulation. Appropriate measures must be taken to maintain near normal downstream flows and to minimize flooding. Fill must be of materials and placed in a manner that will not be eroded by expected high flows. Temporary fill must be entirely removed to upland areas following completion of the construction activity and the affected areas restored to the pre-project conditions. Cofferdams cannot be used to dewater wetlands or other aquatic areas so as to change their use. Structures left in place after cofferdams are removed require a Section 10 permit if located in navigable waters of the United States. (See 33 CFR Part 322). The permittee must notify the District Engineer in accordance with the "Notification" general condition. The notification must also include a restoration plan of reasonable measures to avoid and minimize impacts to aquatic resources. The District Engineer will add special conditions, where

necessary, to ensure that adverse environmental impacts are minimal. Such conditions may include: limiting the temporary work to the minimum necessary; requiring seasonal restrictions; modifying the restoration plan; and requiring alternative construction methods (e.g. construction mats in wetlands where practicable). This Nationwide Permit does not authorize temporary structures or fill associated with mining activities or the construction of marina basins which have not been authorized by the Corps. (Sections 10 and 404)

Regional Note. For activities located in the non-critical areas of the coastal zone, an activity specific Coastal Zone Certification is required. To apply for certification submit notification to the COE.

34. Cranberry Production Activities. Discharges of dredged or fill material for dikes, berms, pumps, water control structures or leveling of cranberry beds associated with expansion, enhancement, or modification activities at existing cranberry production operations provided:

a. The cumulative total acreage of disturbance per cranberry production operation, including but not limited to, filling, flooding, ditching, or clearing, does not exceed 10 acres of waters of the United States, including wetlands;

b. The permittee notifies the District Engineer in accordance with the notification procedures; and

c. The activity does not result in a net loss of wetland acreage. This Nationwide Permit does not authorize any discharge of dredged or fill material related to other cranberry production activities such as warehouses, processing facilities, or parking areas. For the purposes of this NWP, the cumulative total of 10 acres will be measured over the period that this Nationwide Permit is valid. (Section 404)

35. Maintenance Dredging of Existing Basins. Excavation and removal of accumulated sediment for maintenance of existing marina basins, canals, and boat slips to previously authorized depths or controlling depths for ingress or egress, whichever is less provided the dredged material is disposed of at an upland site and proper siltation controls are used. (Section 10)

Regional Note. For activities located in the non-critical areas of the coastal zone, an activity specific Coastal Zone Certification is required. To apply for certification submit notification to the COE.

36. Boat Ramps. Activities required for the construction of boat ramps provided:

a. The discharge into waters of the United States does not exceed 50 cubic yards of concrete, rock, crushed stone or gravel into forms, or placement of pre-cast concrete planks or slabs. (Unsuitable material

that causes unacceptable chemical pollution or is structurally unstable is not authorized);

b. The boat ramp does not exceed 20 feet in width;

c. The base material is crushed stone, gravel or other suitable material;

d. The excavation is limited to the area necessary for site preparation and all excavated material is removed to the upland; and

e. No material is placed in special aquatic sites, including wetlands.

Dredging to provide access to the boat ramp may be authorized by another NWP, regional General Permit, or Individual Permit pursuant to Section 10 if located in navigable waters of the United States. (Sections 10 and 404)

Regional Condition. That, in addition to the restrictions currently imposed by the Nationwide Permit, the following restrictions are added:

a. That the boat ramp width cannot exceed 10 feet.
b. That only one boat ramp is constructed on a single family residential lot.
c. That its use is limited to private, non-commercial activities.

37. Emergency Watershed Protection and Rehabilitation. Work done by or funded by the Natural Resources Conservation Service (formerly Soil Conservation Service) qualifying as an "exigency" situation (i.e., requiring immediate action) under its Emergency Watershed Protection Program (7 CFR Part 624) and work done or funded by the Forest Service under its Burned-Area Emergency Rehabilitation Handbook (FSH 509.13) provided the District Engineer is notified in accordance with the notification general condition. (Also see 33 CFR 330.1(e)). (Sections 10 and 404)

38. Cleanup of Hazardous and Toxic Waste. Specific activities required to effect the containment, stabilization or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority provided the permittee notifies the District Engineer in accordance with the "Notification" general condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands. Court ordered remedial action plans or related settlements are also authorized by this Nationwide Permit. This Nationwide Permit does not authorize the establishment of new disposal sites or the expansion of existing sites used for the disposal of hazardous or toxic waste. (Sections 10 and 404)

Regional Condition. That once the activity authorized by this Nationwide Permit is complete, any special aquatic sites, including wetlands, that were impacted by the activity must be restored to pre-project conditions or a mitigation proposal must be submitted that adequately compensates the impacts to the wetlands. A

restoration or mitigation plan and time table must be submitted to the District Engineer. The District Engineer or a designee will conduct a site inspection after the restoration/mitigation has been completed to ensure compliance.

39. Reserved.

40. Farm Buildings. Discharges of dredged or fill material into jurisdictional wetlands (but not including prairie potholes, playa lakes, or vernal pools) that were in agricultural crop production prior to December 23, 1985 (i.e., farmed wetlands) for foundations and building pads for buildings or agricultural related structures necessary for farming activities. The discharge will be limited to the minimum necessary but will in no case exceed one acre (see the "Minimization" Section 404 only condition). (Section 404)

Regional Note. For activities located in the non-critical areas of the coastal zone, an activity specific Coastal Zone Certification is required. To apply for certification submit notification to the COE.

G. PROPOSED GENERAL PERMITS

Below are three permits that are currently proposed as additions. Please contact the Charleston District Corps of Engineers for more specific details on the proposed General Permits.

1. Nationwide Permit For Single-Family Housing
The Corps of Engineers is proposing to issue a new Nationwide Permit (NWP) titled "Single-Family Housing Nationwide Permit". This proposal was published in the Federal Register (60 FR 15439) on March 23, 1995. A correction to the language contained in paragraph d. of the proposed NWP was published in the Federal Register on March 29, 1995.

This new NWP was proposed in support of the President's Wetlands Plan objectives. The new NWP would authorize activities in wetlands related to the construction or expansion of a single-family home. The NWP includes limits and conditions to minimize impacts on the aquatic environment.

This Nationwide General Permit has been developed to reduce the regulatory burden on small landowners proposing to build or expand a single-family home while simultaneously maintaining environmental safeguards. It seeks to strike this balance by allowing a landowner to build or expand a home with minimal regulatory oversight while protecting the aquatic resource through specific limitations. If finalized, the new NWP will allow the Corps to better focus its resources on areas that have the potential for greater environmental impacts. Further, as the Corps realizes workload savings resulting from this NWP it should be able to improve service to other sectors of the regulated public.

2. General Permit For Mining Activities

A General Permit to perform work in or affecting waters of the United States, upon the recommendation of the Chief of Engineers, pursuant to Section 404 of the Clean Water Act (PL92-500, 33 U.S.C. 1344), is proposed by the District Engineer U.S. Army Engineer District, Charleston Corps of Engineers, to authorize minor impacts to waters of the United States associated with mining activities which were previously authorized by the S.C. Land Resources Conservation Commission (SCLRCC) prior to August 25, 1993, within the boundaries of the Charleston District in the State of South Carolina.

The intent of this General Permit is to minimize project impacts to the environment, minimize regulatory duplication between State and federal agencies, and provide mining interests with a means to resolve the issue in a timely fashion. Please be reminded that this General Permit can only be utilized by mining operations which were previously permitted by South Carolina Land Resources Conservation Commission prior to August 25, 1993.

3. General Permit for Public Roads and Bridges

The Charleston District, U.S. Army Corps of Engineers, proposes to issue a General Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S. C. 1344), for a period of five years, authorizing the South Carolina Department of Transportation to discharge dredged and/or fill material incidental to roadway and bridge construction in waters of the United States and navigable waters of the United States within the geographic limits of South Carolina.

The General Permit includes only those activities which are considered to be minor in nature and would cause only minimal individual environmental impacts; cumulative impacts should also be minor. Activities not discussed in the General permit or which exceed the limitations will require individual review by the Corps of Engineers, Charleston District.

Proposal of this General Permit is brought about to avoid the many individual permit applications that are currently being reviewed for projects when complete avoidance of wetlands is not possible and the options for on-site mitigation is scarce.

VI. POLICIES AND PHILOSOPHIES OF FEDERAL AND STATE REVIEW AGENCIES

A. SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

The South Carolina Department of Natural Resources (SCDNR) is the advocate for and steward of the State's natural resources. The SCDNR develops and implements policies and programs for the conservation, management, utilization, and protection of the State's natural resources, based upon scientifically sound resource assessment and monitoring, applied research, technology transfer, comprehensive planning, public education, technical assistance and constituent involvement. The SCDNR is pro-active in protecting the State's natural resources for use and enjoyment by future generations of South Carolina.

With the transition from the South Carolina Wildlife and Marine Resources Department, Water Resources Commission, and Land Resources Commission to the SCDNR, the Department has modified the process by which reviews and responses to State and federal environmental regulatory agencies are carried out. The environmental review process has been centralized as a SCDNR function within the Office of Environmental Programs, under the administration of the Environmental Programs Director. The director manages the SCDNR Environmental Programs with the assistance of two Regional Environmental Coordinators. The Coastal Coordinator manages the SCDNR review process for the eight coastal counties. The Inland Coordinator manages reviews for the remainder of the State. Each project is assigned a lead division and a project manager. The project manager coordinates project reviews through an intradepartmental process and is responsible for drafting the SCDNR responses to requests for permits and certifications. The project manager represents the single point of contact for the department during the review process.

Wetlands are of vital importance to the natural resources and environment of the State. In some instances, these areas are State-owned property held in trust for the people of the State. Recognizing that there is significant pressure for the development of these areas, the SCDNR has established broad guidelines for permit applications in an effort to reduce the loss of productive wetland areas, while meeting long-range State development needs.

Generally, the SCDNR feels that any development adversely affecting wetlands should meet a recognized public need. Beyond this, those activities that can function only through use of waterfront property or access to it, such as marinas, have highest priority for limited wetland development. Those activities that could function in non-aquatic areas, but for which a shoreline or wetland location would significantly enhance the activity on an economic or aesthetic basis are of lower

priority. In any case, alteration of wetlands should be strictly limited to that which is reasonable and justifiable in achieving the project purpose.

The SCDNR discourages development activities that would result in the elimination or degradation of wetlands providing ecological and water resource functions. Developers are to design projects that avoid and minimize impacts to wetlands to the greatest extent practicable. The SCDNR is interested in maintaining the integrity and continuity of wetland systems and discourages habitat fragmentation resulting from filling, excavation, and clearing activities. Emphasis should be placed on incorporating wetland systems in their natural state into overall development plans and protecting these systems by the establishment of upland buffers. Restrictive covenants should be placed on all set-aside wetlands and upland buffers, protecting them from future development and destructive activities such as filling, dredging, draining, and clearing.

Recognizing that wetlands are often located within the 100 year floodplain, and that undeveloped floodplains offer additional benefits, the SCDNR discourages development below the 100 year base flood elevation. However, the SCDNR encourages the use of this area as dedicated greenways, natural areas, and passive parks. Also, projects should seek to minimize disturbed areas, contain sediment on-site, and protect adjacent aquatic ecosystems from sediment deposition. To achieve these and other environmental related goals, the SCDNR encourages the use of wetlands master planning, in conjunction with other related land use plans.

The SCDNR is opposed to the dredging of canals and ditches through productive, freshwater wetlands to create waterfront property or to drain wetlands in preparation for development. Dredging and filling activities which result in the creation of stagnant water and degraded water quality are discouraged. The excavation of forested or other vegetated wetlands to develop open water lakes or stormwater lagoons results in the elimination of a number of important wetland functions and is discouraged.

Impoundment construction is an activity that can produce both positive and negative impacts on natural resources. Properly constructed and managed impoundments can provide important habitat for a variety of aquatic, terrestrial, and avian species. Impoundments can negatively impact natural systems by altering wetland functions and prohibiting or limiting movement of aquatic organisms and nutrients and altering downstream flows. Dams that create impoundments can block navigability and impact public recreational uses.

The SCDNR endorsement of or opposition to impoundment proposals is based on resource impacts with due consideration provided to preserving public use and benefits. Individual private benefit does not equal or constitute resource or public benefit. The following guidelines pertain to fish and wildlife impoundments only. The impoundment of streams and wetland areas for purposes other than fish and wildlife management is not looked on favorably and will generally be opposed. The SCDNR will require the submittal of a specific management plan

as a part of their review and comment process. The following is a summary of impoundment construction issues:

1. Impoundments that block navigable waters and the migration of public fishery resources will generally be opposed.

2. Impoundments at sites that block intermittent or perennial streams that do not have an existing impoundment between the proposed site and the nearest downstream navigable water will be opposed.

3. Impoundments at sites that block intermittent or perennial streams but do have an existing impoundment between the proposed site and the nearest downstream navigable water will be reviewed on a case-by-case basis. A number of factors will be considered in these reviews, including: the presence of a public fishery in the project area, the quality and uniqueness of the stream fish population, and the extent to which the impoundment design minimizes impact on wetland resources.

4. Impoundments in headwater or isolated wetlands will be reviewed on a case-by-case basis and will consider such factors as: quality and function of the wetland to be impacted, degree of impact to wetland resources, and the natural resource and public benefits derived from the proposed project.

5. The construction of greentree reservoirs is generally looked on favorably, provided the project is designed to adhere to legitimate greentree management (contact the SCDNR for further details) and is located in an undeveloped area capable of supporting waterfowl.

Realizing that the total avoidance of wetland impacts is not always possible, the SCDNR recognizes the need for compensatory mitigation to replace lost wetland functions. The department emphasizes that mitigation is a measure to be used only after all adverse impacts to wetlands have been minimized and no feasible alternatives exist. Wetland restoration, creation, enhancement, and preservation are the most commonly used methods for mitigating wetland loses. Many scientific uncertainties exist concerning the use of such methods, justifying a cautious approach in reviewing mitigation plan proposals. The department offers the following guidelines concerning mitigation activities.

1. Mitigation plans should be designed to replace wetland functions similar to those lost and within the same watershed as the impacts have occurred. Mitigation activities should occur on-site whenever practicable and meaningful options are available.

2. The restoration and enhancement of previously disturbed and degraded wetlands is preferred over the creation of new wetlands from uplands and is encouraged for use in mitigating wetland losses.

3. The creation of wetlands from uplands will be considered only in situations where there is the likelihood of success (i.e., appropriate hydrologic conditions and suitable soils). Creation schemes involving the destruction of productive uplands will be strongly discouraged.

4. The use of preservation as a means of mitigation will be considered in the event the subject property contains outstanding resource value and is vulnerable to future degradation.

5. The use of mitigation banks for mitigating unavoidable impacts will be considered only after the process of sequencing, which requires avoidance and minimization of impacts, has been completed. The use of mitigation banks is encouraged when practicable or meaningful on-site mitigation options are not available. Only banks established through an interagency review process, and protected in perpetuity through the placement of conservation easements or ownership by an appropriate natural resource agency, will be considered appropriate for use in mitigating wetland losses.

Additional information may be obtained by contacting the South Carolina Department of Natural Resources, P.O. Box 12559, Charleston, SC 29422-2559. Phone: (803) 762-5027.

B. U.S. FISH AND WILDLIFE SERVICE

Fish and wildlife and their habitats are public resources with clear commercial, recreational, social, and ecological value to the nation. As the Federal agency charged with the stewardship of the nation's fish and wildlife resources, the Fish and Wildlife Service's mission is to provide the leadership to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of all people.

It is with this mission in mind that the U.S. Fish and Wildlife Service (FWS) provides input to the regulatory process governing freshwater wetlands. The FWS reviews, investigates, and cooperates fully in providing ecological advice in the form of comments and recommendations on proposals for federal or federally permitted or assisted activities and developments in or affecting the nation's waters or wetlands. The FWS operates primarily under the authority of the Fish and Wildlife Coordination Act which requires equal consideration of fish and wildlife resources with other project features.

The FWS also fulfills its mandates under Section 7 of the Endangered Species Act by reviewing permit applications to ensure that the continued existence of an endangered or threatened species is not further jeopardized, and/or that critical habitat for such species is not destroyed or adversely modified.

Freshwater wetlands serve vital fish and wildlife habitat and support functions, as well as provide many other natural values. For this reason, the FWS actively discourages activities and developments in or affecting these wetlands which would, individually or cumulatively with other such activities or developments, unnecessarily destroy, damage or degrade fish, wildlife and naturally functioning wetland and associated aquatic ecosystems.

Review criteria for recommendations include:

1. *The water-dependency of the project - does the project require siting in wetlands to achieve its basic purpose?* (Where biologically productive wetlands are involved and alternative upland sites are available, the FWS usually recommends denial of a permit. In general, residential or commercial development which would require filling or other permanent alteration of freshwater wetlands will not receive a favorable review.)

2. *Is this the least ecologically damaging alternative?*

3. *Have avoidance, minimization, and compensation for unavoidable impacts been addressed in a sequential and comprehensive manner?*

The FWS has a published mitigation policy which addresses wetland encroachment. As described in the policy, mitigation is a step-by-step sequential process beginning with avoidance and minimization as primary goals. At the end of the process, compensation tools such as wetland restorations are available for impacts judged to be in the public interest and truly unavoidable.

Freshwater wetlands should be incorporated into overall development plans in their natural, undisturbed state as green space, ideally separated from adjacent development by a buffer zone. Under most circumstances, they may be incorporated into storm water management plans to serve retention/detention functions in their natural state. Review of total tract development master plans at an early planning stage (pre-permit application) can be most helpful in avoiding direct land use conflicts at the permit stage. Therefore, such consultation is highly encouraged by this agency.

Water access projects are generally considered water-dependent. Where conditions are appropriate (i.e., shellfish waters are not involved), the FWS encourages community facilities located in the adjacent navigable waterbody and accessed by piering over vegetated wetlands. In contrast, the FWS will generally oppose issuance of a permit to dredge canals through freshwater wetlands to create waterfront property or bring navigable water to highland.

If FWS recommendations are not adequately addressed in the federal permit decision-making process, the FWS, through the authority of a Memorandum of Agreement between the Departments of Interior and Army, may choose to request higher level review of the District Engineer's permitting decision. Under certain circumstances, this elevation process may proceed to the ultimate decision level of the Undersecretaries of Interior and Army.

C. ENVIRONMENTAL PROTECTION AGENCY

1. The Environmental Protection Agency (EPA) has the responsibility to:

a. develop guidelines with the Corps for regulation of dredge and fill operations in waters of the United States.
b. review permit applications and provide comments to the permitting authority.
c. make jurisdictional calls when necessary.
d. approve and oversee State 404 programs.
e. enforce violations under Section 309.
f. prohibit any defined area's specification as a discharge site, or restrict its use, by following procedures given in Section 404(c) whenever certain unacceptable adverse environmental effects would be caused by discharges.

In addition, EPA supplies technical assistance to the Corps, other federal or state agencies, or local governments concerning issues of water quality, fish and wildlife resources, and aquatic ecosystem structure and functions.

2. Development of 404(b) Guidelines

Section 404(b) of the Clean Water Act states that each disposal site should be specified for each permit by the Secretary of the Army through applications of guidelines developed by the Administrator of EPA in conjunction with the Secretary of the Army. EPA first published interim final guidelines on September 5, 1975, for the purpose of providing guidance to be applied in evaluating proposed discharges of dredged or fill material into navigable waters. The Guidelines were revised and published on December 24, 1980, and now appear at 40 CFR 230.

3. Application of 404(b) Guidelines

The 404(b) Guidelines apply to all Individual Permit decisions made after March 23, 1981. Federal construction projects which meet 404(b) criteria and Corps civil works also fall under Guidelines jurisdiction. Fundamental to the Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that the discharge will not have an unacceptable adverse impact, either individually or in combination with known and/or probable impacts of other activities affecting the ecosystem. The guiding principle of the application of the Guidelines is that degradation or destruction of aquatic sites may represent an irreversible loss of valuable aquatic resources.

General step-by-step procedures to be followed in applying Guidelines are given in 230.5(a-1). The permitting authority must address all relevant provisions of the Guidelines before reaching a Finding of Compliance in an individual case. The following is a summary of the basic Guideline precepts:

a. No discharge shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem.

b. Where the activity associated with a discharge does not require access or proximity to a special aquatic site to fulfill its basic function (i.e., is not water dependent), practicable alternatives are presumed to be available, unless clearly demonstrated otherwise.

c. No discharge of dredged or fill material shall be permitted if it:
1. causes or contributes to violations of any applicable state water quality standard;
2. violates any toxic effluent standard;
3. jeopardizes the continued existence of an endangered or threatened species;
4. violates requirements to protect a marine sanctuary; or
5. causes or contributes to significant degradation of waters of the United States. Significant degradation includes adverse effects on life stages of aquatic life and other water-dependent wildlife, ecosystem diversity, productivity and stability, recreational, aesthetic and economic values.

d. No discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken to minimize potential adverse impacts on the aquatic ecosystem.

The Guidelines are the basis for specification for disposal sites and must be used by both permitting and review agencies. The Corps' Regulations state that compliance with the Guidelines is mandatory for all permit actions.

4. Enforcement

EPA provides written comments to the Corps, when appropriate, on Cease and Desist Orders and/or after-the-fact permit applications.

EPA technical personnel are available to assist the Corps in evaluating effects of violations on water quality, fish and wildlife habitat, and ecosystem dynamics. Regional Office personnel routinely gather field data and testify at federal trials as expert witnesses for the government.

EPA enforcement options for Section 404 are given in Section 309 of the Clean Water Act (CWA). Section 309(g) of the Act provides the EPA with administrative penalty authority where up to $125,000 of civil penalties can be sought for unauthorized filling of wetlands. If a state with an approved permit program is not actively pursuing enforcement action, EPA may issue an order requiring compliance or bring civil action (federally assumed enforcement). EPA may issue an Administrative Order under Section 309 for any unpermitted discharge of pollutants into waters of the United States which is a violation of the CWA.

5. Use of 404(c) Veto Authority

The Corps may issue a permit, even if EPA comments adversely, after consultation takes place. Under either a federal or state program, the Administrator may prohibit the specification of a discharge site, or restrict its use, by following procedures given in Section 404(c) of the CWA. Such action may be initiated if the Administrator determines that the discharge would have an unacceptable adverse effect on fish and shellfish areas, municipal water supplies, and wildlife or recreation areas. The Administrator may do so in advance of a planned discharge or while a permit application is being evaluated, or even after the issuance of a permit.

If the Administrator uses 404(c), he/she may block the issuance of a permit by the Corps or a State program. The Administrator's action may not be overridden under Section 404(b)(2), which allows the Corps to make some permit decisions based on the economic impact on navigation and anchorage.

D. NATIONAL MARINE FISHERIES SERVICE

The National Marine Fisheries Service (NMFS) is mandated by federal law to review applications for federal permits and licenses and to make recommendations to federal permitting and construction agencies when such recommendations are needed to ensure conservation and enhancement of the nation's living marine resources. In South Carolina, this generally entails review of the Department of the Army permit applications under jurisdiction of the Charleston District, Corps of Engineers.

Development that may affect freshwater habitats is of interest to the NMFS when the project is located in, or may affect, aquatic components of rivers, streams, and their associated plant communities that are contiguous with estuarine and marine waters. This level of interest reflects the view that protection of living marine resources must begin in the tributary waters of our sounds and ocean environments. The use of inland locations by species such as striped bass, American shad, blueback herring, and other species that may migrate hundreds of miles upriver to reach natal spawning sites are also of interest.

Extremely limited staff size precludes NMFS participation in all but the most extensive projects. Upon public notices and requests for input, NMFS determines the magnitude of effect on living marine resources. When the possibility of significant environmental impact is detected a site inspection is performed and a written report containing comments and recommendations is usually provided. Written reports generally contain brief descriptions of the proposed action, resources found at the prospective work site, anticipated impacts on living marine resources and their habitats, and recommendations for project modification and needed permit conditions that preclude significant reductions in fishery habitat quality and abundance.

If the anticipated impacts cannot be satisfactorily avoided or minimized, then denial of federal authorization may be recommended. This recommendation may be accentuated by giving notice that issue resolution at a higher level may be sought if our concerns are not adequately addressed by the Corps of Engineers. This process, which is authorized under Section 404(q) of the Clean Water Act, specifies that the Assistant Secretary of the Army (Public Works) and the Under Secretary for Oceans and Atmosphere, or their immediate subordinates, must consider any decision to authorize an activity for which the NMFS has recommended contrary action.

The NMFS encourages prospective permit applicants to seek pre-application dialogue with regulatory and review agencies when their projects may cause significant harm, either singularly or in combination with other activities, to aquatic environments. Such dialogue often fosters reductions in environmental harm and expedites permit processing. Additional information may be obtained by contacting the National Marine Fisheries Service, Habitat Conservation Division, P.O. Box 12607, Charleston, SC 29412, or by calling (803) 762-8574 or 8591. The fax number is (803) 762-8700.

E. SOUTH CAROLINA ATTORNEY GENERAL

The role of the State Attorney General in reviewing projects that impact freshwater wetlands has traditionally been limited to review to determine:

a. whether navigable waters will be obstructed; and
b. whether wetlands owned by the State in public trust will be adversely affected or effectively converted to private use.

In those freshwater wetland areas above the tide, it is somewhat unlikely that the State owns the wetland bottoms. Accordingly, for those areas, the Office of the State Attorney General would only be concerned with the blockage of navigation. For the areas which are freshwater but still tidal, the State Attorney General's Office would examine them in light of both factors listed above.

F. SOUTH CAROLINA DEPARTMENT OF ARCHIVES AND HISTORY AND THE STATE HISTORIC PRESERVATION OFFICE

The State Historic Preservation office (SHPO) reviews federally funded, licensed, and approved projects, as mandated under Section 106 of the National Historic Preservation Act of 1966, as amended, and the regulations codified at 36 CFR Part 800. Section 106 requires that the SHPO participate in the review process by considering and commenting on the effect that federal or federally funded, licensed, or assisted projects will have on all historic and prehistoric sites, districts, buildings, structures, and objects that are judged worthy of inclusion in the National Register of Historic Places (NRHP).

The SHPO also reviews and comments on State Navigable Waters Permit public notices and South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management (OCRM) public notices and certifications. These comments are made to ensure that significant cultural resources are considered in the project's planning process.

When a project is submitted for SHPO review, a project review is done to determine whether an archaeological survey is necessary. If the survey is required, the SHPO reviews a survey report prepared by an archaeological consultant to determine if the methods used and management recommendations are acceptable to preserve the site. The effects of the project on identified archeological sites are also evaluated against the criteria for eligibility. The decision of effect is then determined, adverse or not adverse, or no effect is discovered based on survey results and determinations of eligibility.

If significant sites are discovered during the survey, the SHPO will work with the agencies involved to determine the best way to manage those resources. Minimizing the impact to, avoiding, or greenspacing these properties are the preferred alternatives. If a site is listed on the National Register or is potentially eligible to be listed on the register, it must either be greenspaced and preserved or an archaeological recovery completed.

The SHPO will review and comment on the data recovery plan within 30 days of receipt. Data recovery should adhere to the guidelines of the South Carolina Department of Archives and History. An official agreement (e.g., a signed Memorandum of Agreement) will be reached with the developer and agencies involved with permitting the project. This document will serve as the guide for management of the historic resources within the development project.

A more detailed discussion of the SHPO review, survey requirements, and compliance responsibilities, is included as Appendix D.

G. SOUTH CAROLINA INSTITUTE OF ARCHAEOLOGY AND ANTHROPOLOGY, USC

The South Carolina Institute of Archaeology and Anthropology (SCIAA) has jurisdiction over submerged cultural properties on or embedded in the State-owned bottom lands of navigable or formerly navigable waterways (South Carolina Underwater Antiquities Act of 1991 [Code of Laws of S.C., 54-7-210 et seq., 1976]). SCIAA also maintains all archaeological site information, State archaeological collections, and regulates their use (Enabling Act of 1963 [Code of Laws of S.C., 60-13-210, 1963]). Historic and prehistoric burial consultation is a service of the Office of the State Archeologist, which coordinates activities with the Deputy State Archaeologist for Forensic Anthropology, Coroner's Offices, law enforcement, and tribal entities.

Where wetland areas consist of abandoned historic rice fields, a range of submerged cultural resources can be found. These can include sunken historic small craft in rice field canals, abandoned machinery in waterways, rice plantation buildings, and rice mills. Historic small craft remains may also be found in foundations for plantation dock pilings or as fill for breached rice filed dikes. Resources can also consist of scattered artifacts deposited around plantation landing docks.

South Carolina's wetlands contain numerous archaeological sites, many of which have not been located and documented in the State Site File System. For this reason, individual docks located in high probability areas for impacting submerged cultural resources are "conditioned," which means that the permit applicant is required to contact SCIAA in the event that any archaeological remains are encountered during installation of docks or walkways.

SCIAA does not intend to create delays in the construction process. SCIAA staff normally gather relevant data from the site and allow work to continue, or suggest alternative placement of dock pilings to avoid adverse impact to any submerged resources.

In the case of large developments where numerous docks are planned, SCIAA seeks a master dock plan that indicates the placement of docks on each lot. If the development is in an area where submerged cultural resources are anticipated, a preliminary reconnaissance survey is often requested. Reconnaissance surveys identify the presence or absence of cultural resources. From this data, dock placement can be modified to avoid impact on resources.

Additional information may be obtained by contacting the South Carolina Institute of Archaeology and Anthropology, 1321 Pendleton Street, Columbia, S.C. 29208. Telephone (803) 734-0566, Fax (803) 254-1338.

VII. MITIGATION

A. DEFINITION

The Federal wetlands program involves the mitigation of harmful effects of necessary development activities on the nation's wetlands and other aquatic resources. The Clean Water Act Section 404 permit program relies on a sequential approach to mitigate these harmful effects by first avoiding unnecessary impacts, then minimizing environmental harm, and finally, compensating for remaining unavoidable damage to wetland and other aquatic resources. Restoration, preservation, and creation of wetlands are examples of compensation. Mitigation is also part of the "Swampbuster" provisions of the Food Security Act, whereby farmers are required to provide mitigation to offset certain conversions of wetlands for agricultural purposes in order to maintain their program eligibility.

A mitigation plan must be submitted by the applicant and approved by the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management for all projects which (1) require a coastal zone consistency determination and (2) impact federally defined jurisdictional freshwater wetlands in the coastal zone, unless (3) the Office of Ocean and Coastal Resource Management determines the impacts are so minimal as not to warrant mitigation.

A deliberate, logical, and sequential planning approach involves several of the elements of mitigation which include avoidance, minimization, and reduction. The Council on Environmental Quality defined at 40 CFR Part 1508.20 that *mitigation includes avoiding the impact, minimizing the impact, rectifying the impact, reducing or eliminating the impact over time, and compensating for the impact by replacing or providing substitute resources or environments.* In the early planning process leading to a conceptual master plan for a development, careful consideration should be given to potential impacts to aquatic resources, including wetlands. In developing the master plan, the three considerations discussed below must be employed if a project is to proceed in an orderly and timely manner.

B. PLANNING APPROACH

1. Identify

Prior to designing a conceptual development plan, a wise developer will identify the size, type, and location of resources existing on or near the alternative project sites being considered. For initial pre-concept level plans the identification need only be an approximation. This identification stage should include review of wetland inventory maps and other available data regarding aquatic resources. The presence or absence of other important resources (i.e.,

endangered species, historic properties) should also be identified. Before proceeding with a concept level design, these initial identifications should be developed into more detailed and certain information. Without first identifying the potentially impacted resources, it is impossible to properly follow the recognized 404(b)(1) Guideline sequence to avoid, minimize, and compensate, which is discussed below.

2. Avoid

In developing a layout for a parcel or tract of land containing aquatic resources, such as wetlands, every effort should be made to avoid encroachments into these areas. A well planned development can capitalize on the presence of aquatic areas by utilizing them in their natural state for stormwater management, or as open space, green areas or natural areas. Wetlands can be a selling point for the development from both an aesthetic and an environmental viewpoint. Also, a developer may be able to receive tax advantages by voluntarily placing wetland areas into conservation easements. Avoiding wetlands can enhance your development and allow the project to proceed unencumbered by the permitting process. It is required under the 404(b)(1) Guidelines that impacts to aquatic resources which can be avoided must be avoided.

3. Minimize

If the wetlands located on the tract cannot be totally avoided, then every effort must be made to minimize encroachments into these areas. Early planning is the key to minimizing impacts on the aquatic resource. The wetlands can be used for storm water management in either their natural state, or in certain cases by excavating a small portion of the wetlands to increase the capacity needed for retention. Minimization can be attained in a number of ways but is generally considered to have occurred when the discharges are held to the minimum necessary to achieve the basic purpose. Examples of minimization include but are not limited to the following:

- Obtaining access to the property through wetlands only where highland access is unavailable.
- Bridging wetlands to the maximum extent practicable taking into consideration cost, logistics, and existing technologies.
- Providing steeper side slopes for access fills (within applicable safety requirements).
- Planning a single access road rather than multiple accesses requiring fill or fragmenting aquatic areas.
- Confining the development to the highland areas with minor encroachments where required.

Minimization of project encroachments into wetlands can significantly shorten the time required to obtain authorization for the project under Nationwide Permits or Individual Permits.

4. Compensate

If more than minimal adverse impacts to the aquatic environment remain after appropriate measures have been incorporated to avoid and minimize the adverse impacts, then compensatory mitigation will normally be required. Compensatory mitigation means compensating for the adverse effects by replacing or providing substitute resources or environments. Categories of compensatory mitigation for ecological effects include creation, restoration, enhancement, and preservation.

The Council on Environmental Quality defined at 40 CFR Part 1508.8 that the words impacts and effects are synonymous and that effects includes ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Further, the Council on Environmental Quality stated that effects include:

a. Direct effects, which are caused by the action and occur at the same time and place.
b. Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.

For Nationwide Permits and small projects, the Corps will generally consider compensatory mitigation plans which comply with the guidelines given in Charleston District's SOP on mitigation to be satisfactory. For Individual Permit applications which exceed the "small" threshold, the Corps may establish project specific mitigation requirements in addition to, or in lieu of, the guidelines given in the SOP. Note also that, for activities requiring project specific State approvals, there may be additional mitigation requirements imposed by the State. Examples of compensatory mitigation include the following.

a. Creation

In designing creation mitigation, care must be taken to avoid the selection of high quality upland habitat for conversion. For example, a cut-over area or former agricultural field would be ecologically preferable to a mature forested area as a candidate for alteration. Mature forested areas will generally not be approved as suitable creation areas. Creation of wetlands is most often a difficult, if not impossible task. Before proposing this form of compensation, please seek expert guidance.

b. Restoration or Enhancement

For example, filling drainage ditches to allow former agricultural or silvicultural lands to return to a natural, functional wetland system.

c. Preservation

For example, dedication of ecologically significant lands to an appropriate trust entity with provisions that require them to be preserved in their natural state in perpetuity.

A willingness to compensate for wetland impacts does not necessarily mean that a permit will be granted. First and foremost, a project must be found to be

consistent with the 404(b)(1) Guidelines. In addition, a project must be determined to be "not contrary to the public interest". To reach these conclusions all reasonable and practicable efforts must have been made to avoid and minimize wetland encroachments. However, compensation may be used to tip the public interest scales to the positive side and may also be used to influence a finding of compliance with the 404(b)(1) Guidelines.

C. DEED RESTRICTIONS

In connection with mitigation plans, the Corps of Engineers and the Office of Ocean and Coastal Resource Management have developed a standard format restrictive covenants document to avoid past problems with the preparation of deed restrictions and protective covenants for 404 permits. A copy of this document is included in Appendix A, pages 27-30. Specific conditions unique to a mitigation plan can be inserted into the restrictive covenants document under paragraph #2 with approval from Corps of Engineers and Office of Ocean and Coastal Resource Management staff. Otherwise, paragraph #1 of the document applies and no further review and approval by the Corps of Engineers and Office of Ocean and Coastal Resource Management staff is required. To execute the document, fill in the blanks with the particulars for the project and have it recorded in the appropriate county records office.

D. MITIGATION BANKING

1. Background

Federal and State agencies have proposed a national policy for the use of mitigation banks for the purpose of providing compensatory mitigation for adverse impacts to wetlands and other aquatic resources. According to State coastal zone regulations, mitigation banking will be considered for publicly constructed linear projects such as highway or pipeline construction and projects where no onsite mitigation is possible. The use of banking for other than the projects listed above will be considered in concert with other regulatory agencies if and when such mitigation banks are proposed or developed. Mitigation banking has been defined as follows:

> *"wetland restoration, creation, enhancement, and in exceptional circumstances, preservation undertaken expressly for the purpose of mitigating unavoidable adverse wetland losses in advance of development actions, when compensatory mitigation cannot be achieved at the development site or is not as environmentally beneficial. It typically involves the consolidation of fragmented wetland mitigation projects into one large contiguous site. Units of restored, created, enhanced or preserved wetlands are expressed as "credits" which may be subsequently be withdrawn to offset "debits" incurred at a project development site."*

The Clinton Administration comprehensive package released on August 23, 1993, called for improvements to federal wetlands programs, including support in the use of mitigation banks for purposes of compensation for unavoidable adverse wetland losses. At the same time, the Environmental Protection Agency and the Army Corps of Engineers issued interim guidance clarifying the role of mitigation banks in the Section 404 permit program and providing general guidelines for their establishment and use.

The objective of a mitigation bank is to provide for the replacement of the chemical, physical and biological functions of wetlands and other aquatic resources which are lost as a result of authorized impacts. The new functioning establishment is considered to be mitigation "credit", to be utilized by the bank sponsor or other interested parties. (The sponsor can "sell" the mitigation "credit" to third parties.)

Mitigation banks are established in advance of the project requiring mitigation "credit". This allows for a constructed and functioning system to be in place in advance of a needed wetland mitigation. The established system reduces the uncertainty in the Clean Water Act Section 404 permit program or the Food Security Act "Swampbuster" program by establishing the compensatory mitigation "credit" available to an applicant. By consolidating compensation requirements, banks can effectively replace lost wetland functions within a watershed, as well as provide economies of scale relating to the planning, implementation, monitoring and management of mitigation projects.

2. Bank Sponsors And Site Selections

Prior to constructing and establishing a functioning system for mitigation "credit", a prospective bank sponsor is encouraged to contact the appropriate agencies (i.e., Army Corps of Engineers, Natural Resources Conservation Service, and State agencies) to advise them of their initial planning. Formal agency involvement and review will begin upon submittal of a proposal (i.e., plan for establishment of a mitigation bank). Please note that submittal of a proposal in no way guarantees use of a bank to satisfy compensatory mitigation requirements of any authorized activity. The permitting agency(s) determines what compensatory mitigation will be acceptable.

Mitigation banks should be planned and developed to address resource needs within a particular watershed. In selecting the site, the bank sponsor should give particular attention to the ecological suitability of the site for achieving the goal and objectives of a bank. In other words, the proposed site possesses the physical, chemical and biological characteristics to support establishment of the desired aquatic resources and functions.

Factors to be considered upon site selection:

- size and location of the site relative to other ecological features
- hydrologic sources, including the availability of water rights
- compatibility with adjacent land uses
- watershed management plans
- development trends (i.e., land use changes)

- habitat status and trends
- local or regional goals for the restoration or protection of particular habitat types or functions
- water quality and floodplain management goals
- establishment of habitat for species of concern

It is also important that ecologically significant upland resources (e.g., mature forests), cultural sites, or threatened and endangered species habitats are not compromised in the process of establishing a bank.

3. Advantages

The use of mitigation banks for future available mitigation "credits" has advantages over the individual mitigation projects that are needed as a result of immediate compensation. Some advantages are listed below:

- It may be more advantageous for maintaining the integrity of the aquatic ecosystem to consolidate compensatory mitigation into a single large parcel or contiguous parcels when ecologically appropriate;

- Establishment of a mitigation bank can bring together financial resources, planning and scientific expertise not practicable to many project-specific compensatory mitigation proposals. This consolidation of resources can increase the potential for the establishment and long-term management of successful mitigation that maximizes opportunities for contributing to biodiversity and/or watershed functions;

- Use of mitigation banks may reduce permit processing times for projects that qualify and provide more cost-effective compensatory mitigation opportunities;

- Compensatory mitigation is typically implemented and functioning in advance of project impacts, thereby reducing temporal losses of aquatic functions and uncertainty over whether the mitigation will be successful in offsetting project impacts;

- The existence of mitigation banks can contribute towards attainment of the goal for no overall net loss of the Nation's wetlands by providing applicants with opportunities to compensate for authorized impacts when mitigation might not otherwise be required.

4. Use Of Mitigation "Credits"

The appropriate federal and state agencies determine the amount of mitigation credits and approve use of credits for necessary development activities. However, the credits are only to be used after all appropriate and practicable steps have been undertaken by the applicant to first avoid and minimize adverse impacts to aquatic resources, prior to authorization to use a particular mitigation bank. In other words, the applicant cannot assume that the mitigation bank will be allowed for compensation without initial justification that compensatory mitigation would have been the only alternative. For both the Section 10/404

and "Swampbuster" programs, requirements for compensatory mitigation may be satisfied through the use of mitigation banks when either on-site compensation is not practicable or use of the mitigation bank is environmentally preferable to on-site compensation.

The service area of a mitigation bank is the designated area (e.g., watershed, county) wherein a bank can reasonably be expected to provide appropriate compensation for impacts to wetlands and/or other aquatic resources.

The applicant should keep in mind that in-kind (i.e., similar ecological areas) compensation will generally be required in use of mitigation "credits". Out-of-kind (i.e., dissimilar ecological areas) compensation may be acceptable if it is determined to be practicable and environmentally preferable to in-kind compensation.

Please Note: The information on mitigation banking is only a summary of the proposed national policy obtained from the proposed mitigation banking guidance that was published in the Federal Register, March 6, 1995. It is important to contact the appropriate agencies (e.g., Army Corps of Engineers, and State agencies) for specific information regarding a particular area of a proposed mitigation bank. In addition, South Carolina State and federal agencies are in the process of developing mitigation banking guidelines for use in South Carolina.

VIII. GENERAL GUIDANCE

A. TIPS ON MINIMIZING DELAYS IN THE DEPARTMENT OF THE ARMY PERMIT PROCESS

Permit applicants and agents often ask if there is anything they can do to help minimize the time required to process their permit application. The following list shows some of the most common delay factors which an applicant or agent can affect. This is not a complete list, only some basic observations.

1. Make sure the application is complete. Checklists are available which you may request and use as a guide for checking completeness.

2. Make sure drawings are in black and white. Color reproduction is not used for public notices.

3. Make sure application drawings are on "8½ x 11" paper. Large size plans are not used for public notices. When reducing plans make sure the scale is correct after reduction.

4. Make sure all plans and written materials are clear, readable, reproducible, and complete. A common problem which delays processing is when material is submitted which is a third or fourth generation reduced copy which has become blurred, distorted, or illegible.

5. Show all significant and required dimensions clearly on the plans. This is covered in some detail on the checklists mentioned above. Normally the minimum dimensions which are needed are length, width, depth, and volume of each activity impacting waters of the United States.

6. Show the location and boundaries of the project on a map included in the plans.

7. For all projects which exceed one acre of impact to wetlands, a verified wetland delineation may be required before the application will be put on public notice. Contact your project manager to determine whether an approximation or a detailed delineation will be required.

8. Submit dated revision pages for all significant changes to application drawings, mitigation plans, etc.

9. Provide written responses to all objections and recommendations made by the commenting agencies at the earliest possible date.

10. An issue which frequently comes up during permit processing is whether or not there is an alternative to the proposed activity which would satisfy the

applicants purpose and need. If the application includes a good written alternatives analysis this often helps resolve such issues with minimal delays. You may request samples from your project manager of such analysis for guidance in preparing your application. For non-water dependent activities, an alternatives analysis is normally required. Although recommended, it is not mandatory that an analysis be submitted with your initial application.

11. At your discretion, and on a strictly voluntary basis, you may submit proposed drafts to assist the project manager in preparing such documents as public notices, environmental assessments, alternatives analyses, special conditions, and decision documents. For large, complex, or controversial applications, such submittals can help reduce processing time. However, these submittals are only useful if they are well written and objectively address all important aspects of the issues involved. You may request samples of such documents for guidance. However, before expending significant effort, you should discuss what materials might be helpful, if any, with the project manager handling the application.

12. At your discretion, and on a strictly voluntary basis, you may submit copies of supporting documentation (e.g. alternatives analysis, mitigation proposals, proposed drafts) on computer diskette for the Corps use. This can reduce the time required to retype printed materials. Before submitting diskettes, contact your project manager to determine what formats (e.g. WordPerfect, MS Word, Arc/Info) are acceptable.

B. DEVELOPMENT DO'S AND DON'TS

The following do's and don'ts are not conclusive but without adherence to these concepts substantial project delays may occur.

- Do incorporate wetlands in their natural state as part of a project's stormwater management plan.
- Do include a proposed draft compensatory mitigation plan with any application you believe will warrant such mitigation.
- Do provide upland buffer zones around preserved wetlands.
- Do avoid all encroachments into aquatic areas which are not necessary to fulfill the basic purpose, or for which less damaging sites are available.
- Do minimize any impacts to the environment that cannot be avoided to the extent practicable taking into consideration cost, logistics, and existing technologies.

- Do seek pre-application consultations with the permitting and/or resource agencies for projects with potentially significant impacts to aquatic sites, cultural resources, or the environment.

- Do include all phases of a development when submitting a plan for review. The intended use for all aquatic areas, including wetlands, on-site should be shown.

- Do design road crossings, weirs, and flow impeding activities so as not to isolate aquatic areas hydrologically or to prevent the movement of aquatic life. For example, road crossings should be adequately culverted or bridged, weirs should be of minimal depth, stream impoundments should provide fish ladders where possible, etc.

- Don't purchase property without knowledge of the type, size, and location of aquatic areas.

- Don't prepare development plans without knowledge and consideration of potential impacts to aquatic resources on or near the property.

- Don't prepare project plans using wetland delineations which have not been verified as accurate by the Corps of Engineers.

- Don't try to piecemeal permit approvals for a development.

- Don't plan extensive canals through wetlands to create waterfront lots or water access.

- Don't excavate wetlands to create lakes or ponds.

- Don't impound rivers or streams to create ponds.

- Don't fill wetlands to create residential or commercial lots.

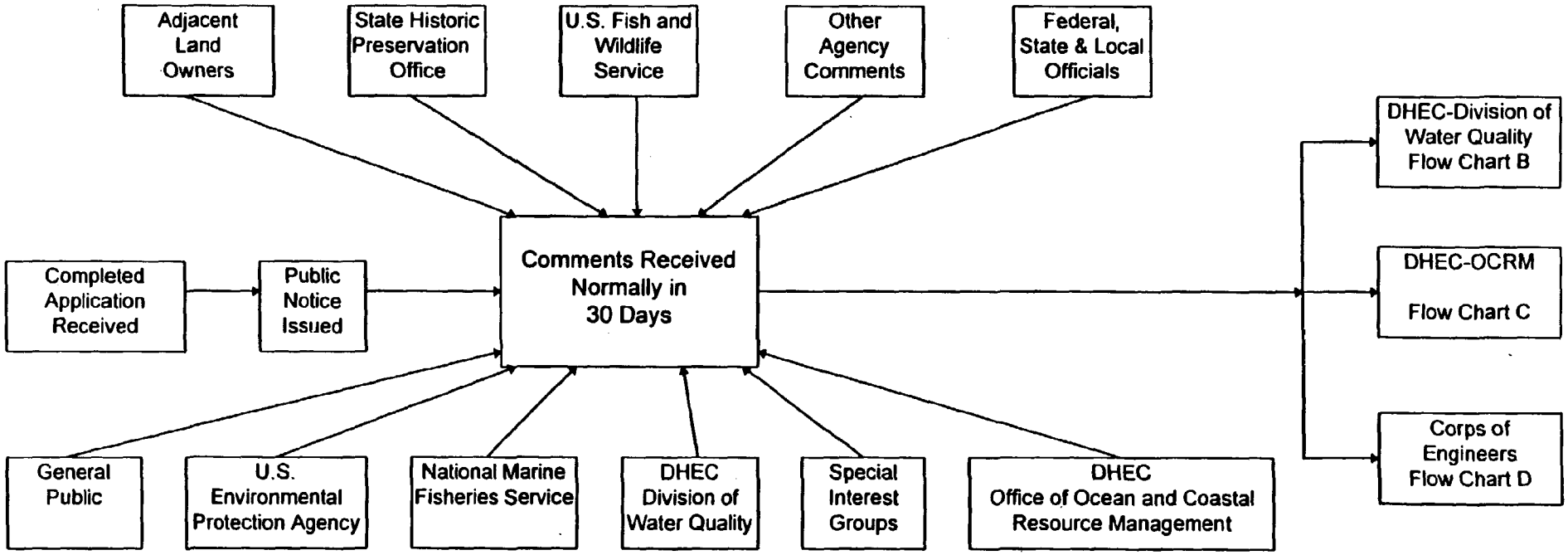
- Don't undertake any project without first obtaining all necessary permits and/or certifications.

IX. FLOW CHARTS

This section contains flow charts that trace the procedures involved in the permit process. Flow Chart 'A' shows an overview of the interagency operations of the Individual Permit process. This then leads to the Individual Permit process of the South Carolina Department of Health and Environmental Control - Division of Water Quality (Chart 'B'), the Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management's process for Nationwide Permit 26 for projects outside of the coastal zone and affecting more than 1 acre of wetlands (Chart 'C').and the Army Corps of Engineers Individual Permit process (Chart 'D'). Also included is the water quality certification process of the South Carolina Department of Health and Environmental Control (Chart 'E').

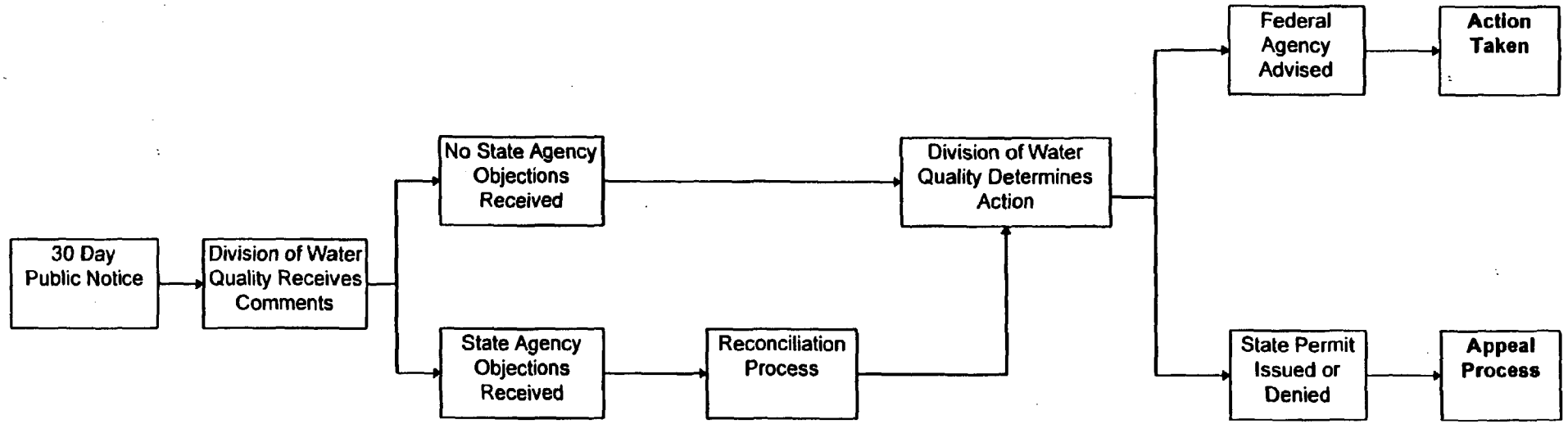
INDIVIDUAL PERMIT PROCESS

(Flow Chart A)



SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
DIVISION OF WATER QUALITY
PROCESS FOR STATE NAVIGABLE WATERS

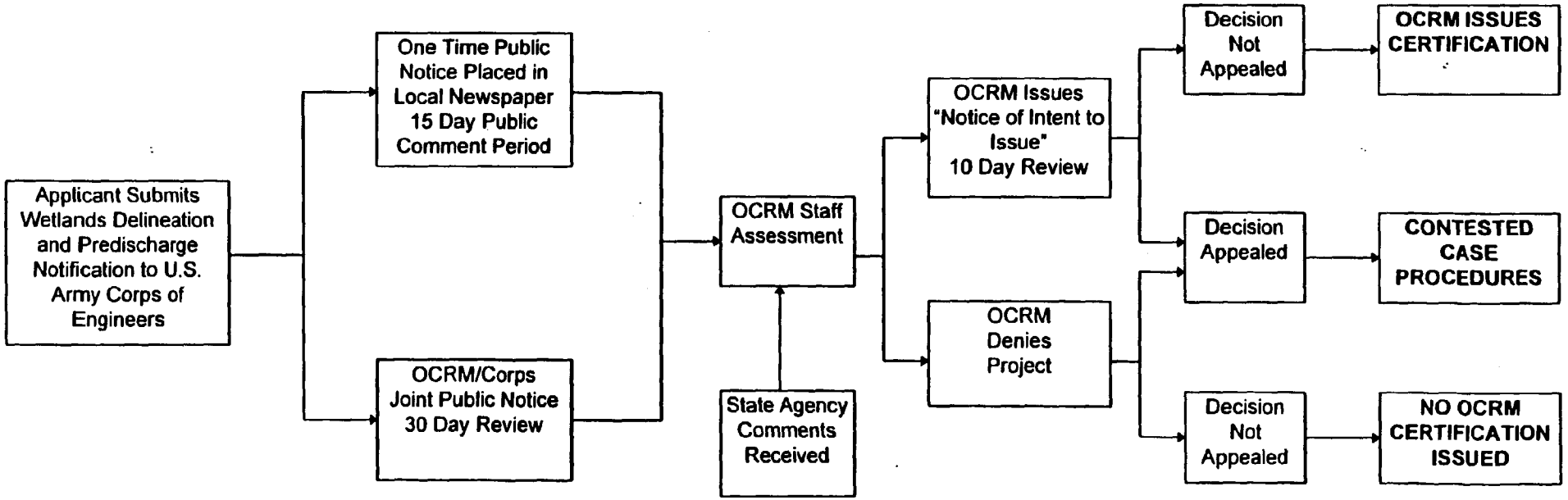
(Flow Chart B)



SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT'S
PROCESS FOR NATIONWIDE PERMIT 26

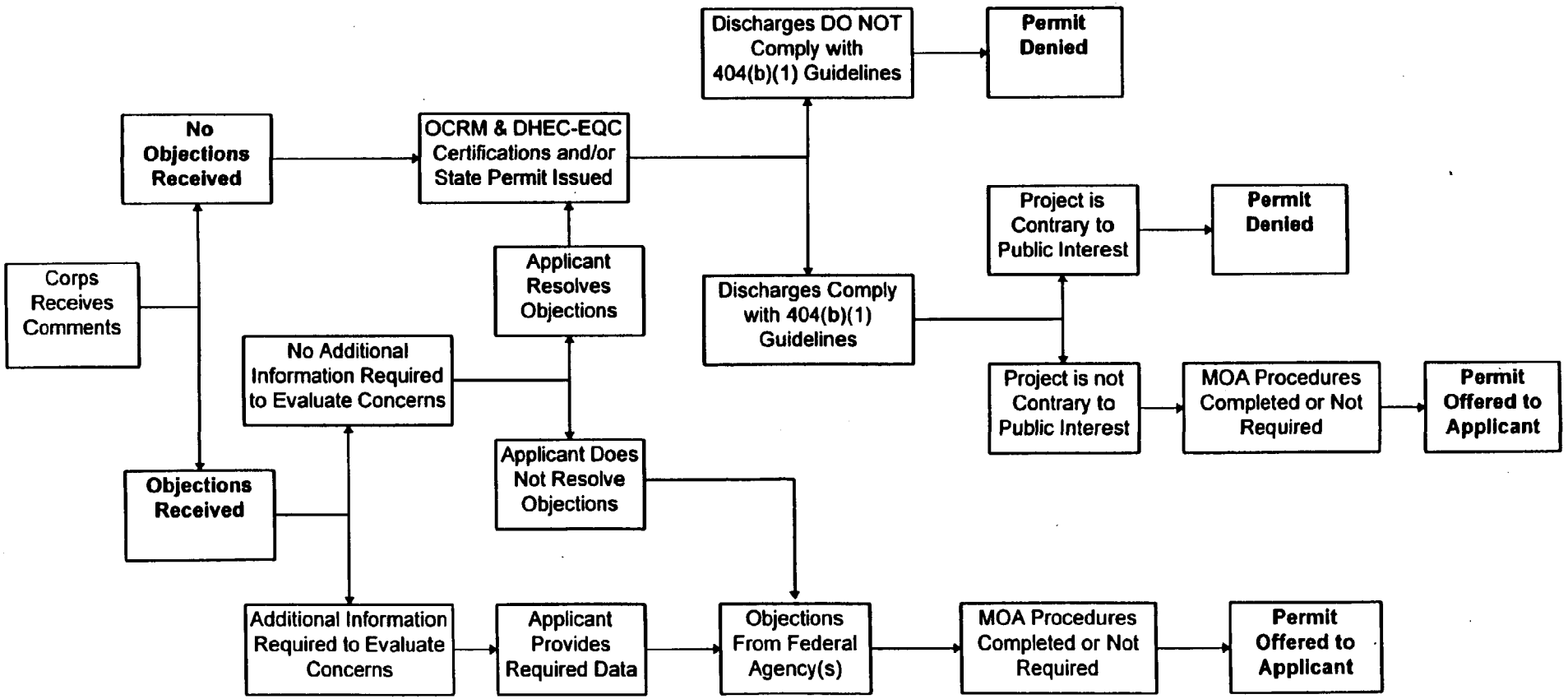
For Projects Within the Coastal Zone

(Flow Chart C)



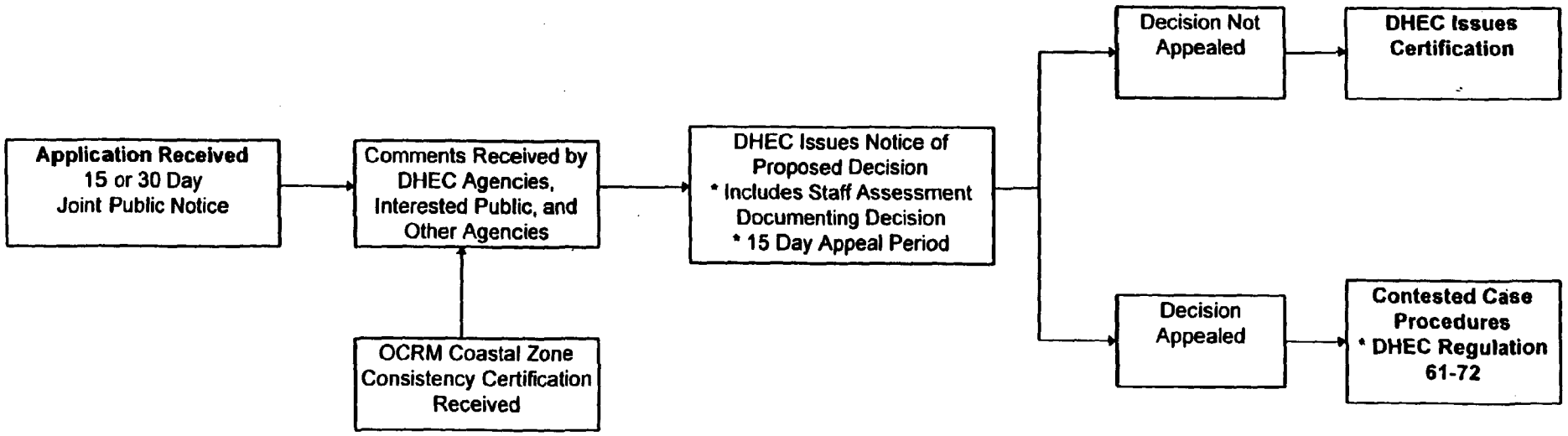
U.S. ARMY CORPS OF ENGINEER'S INDIVIDUAL PERMIT PROCESS

(Flow Chart D)



SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
WATER QUALITY CERTIFICATION PROCESS
INDIVIDUAL PERMIT

(Flow Chart E)



APPENDIX A

Charleston District - Corps of Engineers P.O. Box 919 Charleston, SC 29402

REQUEST FOR WETLANDS DETERMINATION

Date: _____

County: _____ Total Acreage of Tract: _____

Project Nnme (if applicable): _____

Property Owner (name, address, phone)	Agent/Developer/Engineer (name, address, phone):
_____	_____
_____	_____
_____	_____

Status of Project (check one):

( ) On-going site work for development purposes.

( ) Development in planning stages.

( ) No specific development planned at this time.

Project Type - indicate the proposed use of the land in question or, if no specific work is planned at present, the current zoning or land use at the site:

( ) Residential ( ) Commercial ( ) Mixed use (residential + commercial)

( ) Industrial ( ) Agriculture ( ) Public Works

( ) Silviculture ( ) Aquaculture ( ) Other:

Information Required to Accompany Request - Check the items submitted - forward as much information as is available. At a minimum, the first two items must be forwarded; Consultants must submit the first four.

( ) Accurate Location Map (from County Map, USGS Quad Sheet, etc.)

( ) Survey Plat or Tax Map of the property in question.

( ) Soil Survey Sheet (from SCS) or Aerial Photograph (from County Assessors Office or other source - property boundaries shown on the soil survey/photo would be very helpful).

( ) Latitude and Longitude for the center of property.

( ) Topographic Survey.

( ) Conceptual Site Plan for the overall development.

Signature of Property Owner or Authorized Agent: _____

The person signing this form must have the authority of the owner to authotrize Corps of Engineers employees or their agents to enter onto the property for onsite investigations if such is deemed necessary. Do not sign unless you have the specific authority of the owner.

REVISED 15 FEB 94

South Carolina DHEC
Department of Health and Environmental Control

Bureau of Water Pollution Control
Division of Water Quality
and Shellfish Sanitation
2600 Bull Street
Columbia, SC 29201

Permit Application
For
Construction in Navigable Waters
(Please Type or Print in Ink)

---

1. Applicant

Name _____
Address _____
_____
_____
Telephone_____

Authorized Agent

Name _____
Address _____
_____
_____
Telephone_____

---

2. Location where proposed activity exists or will occur.

County: _____
Nearest City or Town: _____
Nearest Street or Road: _____
Name of Waterbody: _____
Latitude: _____ Longitude: _____

One set of original drawings which show the location and character of the proposed activity must be attached to this application (see instructions).

---

3. Describe the proposed activity, its purpose and intended use, including a description of the type of structures, and the type, composition and quantity (cubic yards) of materials to be deposited or excavated and means of conveyance.

---

4. Proposed Use (Circle One).

Private Public/Commercial Other (Explain in remarks section, #12)

---

5. Please list the names and mailing addresses of all adjoining property owners whose property also adjoins the waterway. Applications submitted without the addresses of adjoining property owners will be returned as incomplete.

---

6. Affidavit of publication describing the proposed activity in a newspaper of general circulation in the county where the encroachment is sought must be attached to this application. Certification may be an affidavit of publication or dated newspaper clippings. See the attached Public Notice Requirement page **(attachment A)** for more information.

---

7. Evidence of ownership or the consent of the owner of the adjacent highland on which any part of the projected activity will be located must accompany this application. The attached form entitled "Affidavit of Ownership or Control" **(attachment B)** is to be used for this purpose. The affidavit is to be completed, **notarized** and returned as a part of this application.

---

8. Date activity is proposed to begin: _____
Date activity is expected to be completed: _____

---

9. Is any portion of the activity for which authorization is sought now complete? Yes ___ No ___.
If the answer is "Yes", give the reasons in the remarks section (question 12). Please give the month and year the activity was completed _____. Indicate all existing work on the drawings.

---

10. 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 Number	Date of Application	Date of Approval

---

11. Has any agency denied approval for the activity described herein or for any activity directly related to the activity described herein?
Yes ____ No ____. (If the answer is "Yes" explain in the remarks section, #12).

---

12. Remarks:

---

13. Permits authorizing structures in navigable waters are generally issued for ten (10) years and are renewable. Construction of authorized structures must generally be completed within three (3) years of the date of permit issuance. Applicants requesting longer term permits must indicate the requested term and justification below.

Requested term:
Structure _____ years
Construction _____ years

Justification: (Attach additional pages if necessary)

---

14. 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 — Date

Please return the completed application and all attachments to:

South Carolina Department of Health and Environmental Control
Waccamaw EQC District Office
Attention: Jeff Havel
1705 Oak Street Plaza, Suite 2
Myrtle Beach, SC 29577
803-448-1902

AFFIDAVIT OF OWNERSHIP OR CONTROL

TO THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL:

(1) [THIS PARAGRAPH SHALL BE COMPLETED BY THE RECORD OWNER] I hereby swear (or affirm) that I am the record owner of the highland property shown in the attached permit application situated in _____ County, South Carolina; and that said property is all of the property that is contiguous to and landward of the area in which the work proposed in the permit application is to be conducted. Furthermore, I swear (or affirm) that as record owner I have the necessary approval or permission from all other persons with a legal interest in said property to conduct the work proposed in the permit application.

STATE THE NAME AND ADDRESS OF ALL OTHER PERSONS WITH A LEGAL INTEREST IN SAID PROPERTY:

_____

_____

_____

_____

(2) [THIS PARAGRAPH IS TO BE COMPLETED BY THE RECORD OWNER IF THE PERMIT APPLICANT IS NOT THE SAME PERSON AS THE RECORD OWNER] I hereby swear (or affirm) that the applicant, _____, for the permit which is the subject of the attached permit application has been given the necessary approval and permission from me to conduct the work proposed in the permit application.

(3) [THIS PARAGRAPH TO BE COMPLETED IF THE PERMIT APPLICANT IS A RECORD EASEMENT HOLDER]as the record easement holder I hereby swear (or affirm) that I am the record easement holder of the highland property shown in the attached permit application situated in _____ County, South Carolina; and that said property is all of the property that is contiguous to and landward of the area in which the work proposed in the permit application is to be conducted, and the easement is sufficient to authorize the work proposed in the permit application. The easement relied upon was granted to me by (name of grantor) _____ _____ on (date) _____, and the easement is recorded in the office of the Clerk of Court or Register of Mesne Conveyance for the County of _____ in Book _____, at Page _____.

NOTE! A copy of the easement relied upon by the permit applicant must be attached to this affidavit at the time the affidavit is submitted to the S.C. Department of Health and Environmental Control.

This Affidavit applies only to highland and does not apply to any area below mean high water in tidelands or ordinary high water in non-tidal waters.

_____
Affiant's Signature

_____
Date

Sworn to and subscribed before me
at _____,
_____ County,
this _____ day of _____, 19___.

_____
Notary Public
My Commission expires:_____.

South Carolina DHEC
Department of Health and Environmental Control

Bureau of Water Pollution Control
Division of Water Quality
2600 Bull Street
Columbia, SC 29201

STATE CERTIFICATION

Applicant:_____ **P/N Number:**_____

Before the Department can act on your application for Water Quality Certification and Coastal Zone Consistency Certification you must 1) publish notice of the application in a newspaper and 2) submit the required fee. Details of each of these requirements follow.

1) PUBLIC NOTICE: Pursuant to R. 61-101, Water Quality Certification, and the Coastal Zone Management Program (48-39-10 et.seq.), a notice in the newspaper must contain information explaining the location, nature, and extent of the proposed activity. The notice must indicate a 15 day comment period and be published in a newspaper of local or general circulation in the county where the activity is proposed to take place for one day. You must provide SCDHEC with an affidavit of publication from the newspaper within fifteen days of publication. **You must publish the following notice and submit an affidavit of publication before SCDHEC can continue processing your application.**

PUBLIC NOTICE

(Applicant) has applied to the South Carolina Department of Health and Environmental Control for a State Certification to (brief description of work) for (public/private) use in (name and location of waterbody). Comments will be received by South Carolina Department of Health and Environmental Control at 2600 Bull St., Columbia, SC, 29201, ATTN: Rheta Geddings, Division of Water Quality, until (insert date - 15 days from date of this notice).

2) FEE: Pursuant to R. 61-30, Environmental Protection Fees, the Department is authorized to collect application fees for Water Quality Certifications. The following fee is now due to the Department of Health and Environmental Control:

^C (applicant's name)
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

*** The Department has 180 days to complete action on an application for 401 Water Quality Certification or the assessd fee must be returned. This 180 days includes only those days in which the application is actively being reviewed by the Department; the clock stops when information is requested and the Department is waiting on a response. **Accordingly, the 180 day clock will not start until we have received an affidavit of publication and the appropriate fee.**

** If you have questions regarding these requirements, please contact Mark Giffin at 803-734-5302, Heather Lindsay at 803-734-5301 or Jeff Havel at 803-448-1902. **

---

^C
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

Please return this page with your check (made payable to S. C. Department of Health and Environmental Control) and your affidavit of publication to:

S. C. Department of Health and Environmental Control
Bureau of Water Pollution Control
Attn: Rheta Geddings
2600 Bull Street
Columbia, SC 29201

South Carolina
DHEC
Department of Health and Environmental Control

Bureau of Water Pollution Control
Division of Water Quality
2600 Bull Street
Columbia, SC 29201

STATE CERTIFICATION AND CONSTRUCTION IN NAVIGABLE WATERS PERMIT

pplicant:_____ **P/N Number:**_____

Before the Department can act on your application for State Certification and Construction in Navigable Waters mit you must 1) publish notice of the application in a newspaper and 2) submit the required fee. Details of each of these uirements follow.

PUBLIC NOTICE: Pursuant to R. 61-101, Water Quality Certification, the Coastal Zone Management Program (48-39- et.seq.), and R. 19-450, Permits for Construction in Navigable Waters, a notice in the newspaper must contain ormation explaining the location, nature, and extent of the proposed activity. The notice must indicate a 15 day comment iod and be published in a newspaper of local or general circulation in the county where the activity is proposed to take e for one day. You must provide SCDHEC with an affidavit of publication from the newspaper within fifteen days of lication. **You must publish the following notice and submit an affidavit of publication before SCDHEC can tinue processing your application.**

PUBLIC NOTICE

(Applicant) has applied to the South Carolina Department of Health and Environmental Control for a State Certification and a Construction in Navigable Waters Permit to (brief description of work) for (public/private) use in (name and location of waterbody). Comments will be received by South Carolina Department of Health and Environmental Control at 2600 Bull St., Columbia, SC, 29201, ATTN: Rheta Geddings, Division of Water Quality, until (insert date - 15 days from date of this notice).

FEE: Pursuant to R. 61-30, Environmental Protection Fees, and Chapter 1 of Title 49 of the 1976 Code of Laws, the artment is authorized to collect application fees for Water Quality Certifications and Construction in Navigable Waters nits. The following fee is now due to the Department of Health and Environmental Control:

^C (applicant's name)
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

The Department has 180 days to complete action on an application for 401 Water Quality Certification or the assessd must be returned. This 180 days includes only those days in which the application is actively being reviewed by the artment; the clock stops when information is requested and the Department is waiting on a response. **Accordingly, 180 day clock will not start until we have received an affidavit of publication and appropriate fee.**

you have questions regarding these requirements, please contact Mark Giffin at 803-734-5302, Heather Lindsay at 803-5301 or Jeff Havel at 803-448-1902. **

---

^C
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

Please return this page with your check (made payable to S. C. Department of Health and Environmental Control) your affidavit of publication to:

S. C. Department of Health and Environmental Control
Bureau of Water Pollution Control
Attn: Rheta Geddings
2600 Bull Street
Columbia, SC 29201

South Carolina
DHEC
Department of Health and Environmental Control

Bureau of Water Pollution Control
Division of Water Quality
2600 Bull Street
Columbia, SC 29201

CONSTRUCTION IN NAVIGABLE WATERS PERMIT

Applicant:_____ **P/N Number:**_____

Before the Department can act on your application for Construction in Navigable Waters Permit you must 1) publish notice of the application in a newspaper and 2) submit the required fee. Details of each of these requirements follow.

1) PUBLIC NOTICE: Pursuant to R. 19-450, Permits for Construction in Navigable Waters, a notice in the newspaper must contain information explaining the location, nature, and extent of the proposed activity. The notice must indicate a 15 day comment period and be published in a newspaper of local or general circulation in the county where the activity is proposed to take place for one day. You must provide SCDHEC with an affidavit of publication from the newspaper within fifteen days of publication. **You must publish the following notice and submit an affidavit of publication before SCDHEC can continue processing your application.**

PUBLIC NOTICE

(Applicant) has applied to the South Carolina Department of Health and Environmental Control for a Construction in Navigable Waters Permit to (brief description of work) for (public/private) use in (name and location of waterbody). Comments will be received by South Carolina Department of Health and Environmental Control at 2600 Bull St., Columbia, SC, 29201, ATTN: Rheta Geddings, Division of Water Quality, until (insert date - 15 days from date of this notice).

2) FEE: Pursuant to Chapter 1 of Title 49 of the 1976 Code of Laws, the Department is authorized to collect application fees for Construction in Navigable Waters Permits. The following fee is now due to the Department of Health and Environmental Control:

^C (applicant's name)
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

** If you have questions regarding these requirements, please contact Mark Giffin at 803-734-5302, Heather Lindsay at 803-734-5301 or Jeff Havel at 803-448-1902. **

---

^C
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

Please return this page with your check (made payable to S. C. Department of Health and Environmental Control) and your affidavit of publication to:

S. C. Department of Health and Environmental Control
Bureau of Water Pollution Control
Attn: Rheta Geddings
2600 Bull Street
Columbia, SC 29201

South Carolina DHEC
Department of Health and Environmental Control

Bureau of Water Pollution Control
Division of Water Quality
2600 Bull Street
Columbia, SC 29201

COASTAL ZONE CONSISTENCY CERTIFICATION & CONSTRUCTION IN NAVIGABLE WATERS PERMIT

Applicant:_____ **P/N Number:**_____

Before the Department can act on your application for Coastal Zone Consistency Certification and Construction in Navigable Waters Permit **you** must 1) publish notice of the application in a newspaper and 2) submit the required fee. Details of each of these requirements follow.

1) PUBLIC NOTICE: Pursuant to the Coastal Zone Management Program (48-39-10 et.seq.), and R. 19-450, Permits for Construction in Navigable Waters, a notice in the newspaper must contain information explaining the location, nature, and extent of the proposed activity. The notice must indicate a 15 day comment period and be published in a newspaper of local or general circulation in the county where the activity is proposed to take place for one day. You must provide SCDHEC with an affidavit of publication from the newspaper within fifteen days of publication. **You must publish the following notice and submit an affidavit of publication before SCDHEC can continue processing your application.**

PUBLIC NOTICE

(Applicant) has applied to the South Carolina Department of Health and Environmental Control for a Coastal Zone Consistency Certification and a Construction in Navigable Waters Permit to (brief description of work) for (public/private) use in (name and location of waterbody). Comments will be received by South Carolina Department of Health and Environmental Control at 2600 Bull St., Columbia, SC, 29201, ATTN: Rheta Geddings, Division of Water Quality, until (insert date - 15 days from date of this notice).

2) FEE: Pursuant to Chapter 1 of Title 49 of the 1976 Code of Laws, the Department is authorized to collect application fees for Construction in Navigable Waters Permits. The following fee is now due to the Department of Health and Environmental Control:

^C (applicant's name)
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

** If you have questions regarding these requirements, please contact Mark Giffin at 803-734-5302, Heather Lindsay at 803-734-5301 or Jeff Havel at 803-448-1902. **

---

^C
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

Please return this page with your check (made payable to S. C. Department of Health and Environmental Control) and your affidavit of publication to:

S. C. Department of Health and Environmental Control
Bureau of Water Pollution Control
Attn: Rheta Geddings
2600 Bull Street
Columbia, SC 29201

South Carolina DHEC
Department of Health and Environmental Control

Bureau of Water Pollution Control
Division of Water Quality
2600 Bull Street
Columbia, SC 29201

WATER QUALITY CERTIFICATION

Applicant:_____ **P/N Number:**_____

Before the Department can act on your application for Water Quality Certification you must 1) publish notice of the application in a newspaper and 2) submit the required fee. Details of each of these requirements follow.

1) PUBLIC NOTICE: Pursuant to R. 61-101, Water Quality Certification, a notice in the newspaper must contain information explaining the location, nature, and extent of the proposed activity. The notice must indicate a 15 day comment period and be published in a newspaper of local or general circulation in the county where the activity is proposed to take place for one day. You must provide SCDHEC with an affidavit of publication from the newspaper within fifteen days of publication. **You must publish the following notice and submit an affidavit of publication before SCDHEC can continue processing your application.**

PUBLIC NOTICE

(Applicant) has applied to the South Carolina Department of Health and Environmental Control for a Water Quality Certification to (brief description of work) for (public/private) use in (name and location of waterbody). Comments will be received by South Carolina Department of Health and Environmental Control at 2600 Bull St., Columbia, SC, 29201, ATTN: Rheta Geddings, Division of Water Quality, until (insert date - 15 days from date of this notice).

2) FEE: Pursuant to R. 61-30, Environmental Protection Fees, the Department is authorized to collect application fees for water quality certification. The following fee is now due to the Department of Health and Environmental Control:

^C (applicant's name)
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

*** The Department has 180 days to complete action on an application for 401 Water Quality Certification or the assessd fee must be returned. This 180 days includes only those days in which the application is actively being reviewed by the Deparument; the clock stops when information is requested and the Department is waiting on a response. **Accordingly, the 180 day clock will not start until we have received an affidavit of publication and the appropriate fee.**

** If you have questions regarding this public notice requirement for Water Quality Certification, please contact Mark Giffin at 803-734-5302, Heather Lindsay at 803-734-5301 or Jeff Havel at 803-448-1902. **

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^C
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

Please return this page with your check (made payable to S. C. Department of Health and Environmental Control) and your affidavit of publication to:

S. C. Department of Health and Environmental Control
Bureau of Water Pollution Control
Attn: Rheta Geddings
2600 Bull Street
Columbia, SC 29201

South Carolina DHEC
Department of Health and Environmental Control

Bureau of Water Pollution Control
Division of Water Quality
2600 Bull Street
Columbia, SC 29201

ATER QUALITY CERTIFICATION & CONSTRUCTION IN NAVIGABLE WATERS PERMIT

)plicant:_____ **P/N Number:**_____

Before the Department can act on your application for Water Quality Certification and Construction in Navigable Waters Permit you must 1) publish notice of the application in a newspaper and 2) submit the required fee. Details of each of these requirements follow.

1) PUBLIC NOTICE: Pursuant to R. 61-101, Water Quality Certification, and R. 19-450, Permits for Construction in Navigable Waters, a notice in the newspaper must contain information explaining the location, nature, and extent of the proposed activity. The notice must indicate a 15 day comment period and be published in a newspaper of local or general circulation in the county where the activity is proposed to take place for one day. You must provide SCDHEC with an affidavit of publication from the newspaper within fifteen days of publication. **You must publish the following notice and submit an affidavit of publication before SCDHEC can continue processing your application.**

PUBLIC NOTICE

(Applicant) has applied to the South Carolina Department of Health and Environmental Control for a Water Quality Certification and a Construction in Navigable Waters Permit to (brief description of work) for (public/private) use in (name and location of waterbody). Comments will be received by South Carolina Department of Health and Environmental Control at 2600 Bull St., Columbia, SC, 29201, ATTN: Rheta Geddings, Division of Water Quality, until (insert date - 15 days from date of this notice).

2) FEE: Pursuant to R. 61-30, Environmental Protection Fees, and Chapter 1 of Title 49 of the 1976 Code of Laws, the Department is authorized to collect application fees for Water Quality Certifications and Construction in Navigable Waters Permits. The following fee is now due to the Department of Health and Environmental Control:

^C (applicant's name)
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

*** The Department has 180 days to complete action on an application for 401 Water Quality Certification or the assessd fee must be returned. This 180 days includes only those days in which the application is actively being reviewed by the Department; the clock stops when information is requested and the Department is waiting on a response. **Accordingly, the 180 day clock will not start until we have received an affidavit of publication and the appropriate fee.**

** If you have questions regarding these requirements, please contact Mark Giffin at 803-734-5302, Heather Lindsay at 803-734-5301 or Jeff Havel at 803-448-1902. **

---

^C
Joint Public Notice Number ^C
Issue Date: ^C
Total Due: $^C

Please return this page with your check (made payable to S. C. Department of Health and Environmental Control) and your affidavit of publication to:

S. C. Department of Health and Environmental Control
Bureau of Water Pollution Control
Attn: Rheta Geddings
2600 Bull Street
Columbia, SC 29201

Joint Federal and State Application Form **For Activities Affecting Waters of the United States or Critical Areas of the State of South Carolina**	This Space for Official Use Only. Application # _____ Date Received: _____ Project Manager: _____

Authorities: 33 USC 401, 33 USC 403, 33 USC 407, 33 USC 408, 33 USC 1341, 33 USC 1344, 33 USC 1413 and Section 48-39-10 et. seq of the South Carolina Code of Laws. These laws require permits for activities 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. The Corps of Engineers and the State of South Carolina have established a joint application process for activities requiring both Federal and State review or approval. Under this joint process, you may use this form, together with the required drawings and supporting infromation, to apply for both the Federal and/or State permit(s).

Drawings and Supplemental Information Requirements: In addition to the information on this form, you must submit a set of drawings and, in some cases, additional information. A completed application form together with all required drawings and supplemental information is required before an application can be considered complete. See the attached instruction sheets for details regarding these requirements. You may attach additional sheets if necessary to provide complete information.

1. Applicant's Name.	4. Agent's Name (an agent is not required).
2. Applicant's Address.	5. Agent's Address.
3. Applicant's Contact Number (include area code). Residence: Business: FAX:	6. Agent's Contact Number (include area code). Residence: Business: FAX:
7. Project Title.	9. Project Location. Street Address: County: Latitude: Longitude:
8. Nearest Waterbody to project site (if known).	

10. Directions to the Site (attach additional sheets if needed).

11. Description of the Overall Project and of Each Activity In or Affecting U. S. Waters or State critical areas (attach additional sheets if needed).

12. Overall Project Purpose and the Basic Purpose of Each Activity In or Affecting U. S. Waters (attach additional sheets if needed).

13. Type and Quantity of Materials To Be Discharged.		14. Type and Quantity of Impacts to U. S. Waters (including wetlands).			
Dirt or Topsoil:	_____ cy	Filling:	_____ ☐ acres ☐ sq. ft.		_____ cy
Clean Sand:	_____ cy	Backfill & Bedding:	_____ ☐ acres ☐ sq. ft.		_____ cy
Mud:	_____ cy	Landclearing:	_____ ☐ acres ☐ sq. ft.		_____ cy
Clay:	_____ cy	Dredging or Excavation:	_____ ☐ acres ☐ sq. ft.		_____ cy
Gravel, Rock, or Stone:	_____ cy	Flooding:	_____ ☐ acres ☐ sq. ft.		_____ cy
Concrete:	_____ cy	Draining:	_____ ☐ acres ☐ sq. ft.		_____ cy
Other (describe):	_____ cy	Shading:	_____ ☐ acres ☐ sq. ft.		_____ cy
TOTAL:	_____ cy	TOTALS	_____ ☐ acres ☐ sq. ft.		_____ cy

15. Names and Addresses of All Adjoining Property Owners (attach additional sheets if needed).

16. Has any portion of the work already commenced? If yes, describe all work that has been done and the dates of the work.

17. List all Certifications, Approvals, and Denials received from Federal, State, or Local Agencies for work described in this application.

18. Authorization of Agent.
I hereby authorize the agent whose name is given in block number 4 of this application to act in my behalf in the processing of this application and to furnish supplemental information in support of this application.

_____
Applicant's Signature Date

19. Certification.
Application is hereby made for a permit or permits to authorize the work and uses of the work as described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent for the applicant.

_____ _____
Applicant's Signature Date Agent's Signature Date

The application must be signed by the person who desires to undertake the proposed activity or it may be signed by a duly authorized agent if the authorization statement in blocks 4 and 18 have been completed and signed. 18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises 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, ficticious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Submit the completed application form with the required drawings and all supporting information as indicated below.

Send all original application materials to:
U. S. Army Corps of Engineers
Charleston District, Regulatory Branch
P. O. Box 919, Attn: CESAC-CO-P
Charleston, South Carolina 29402
(803) 727-4330

Send one complete copy to:
S. C. Dept of Health & Environmental Control
Office of Ocean and Coastal Resource Management
4130 Faber Place, Suite 300
Charleston, South Carolina 29405
(803) 744-5838

Send one complete copy to:
S. C. Dept. of Health & Environmental Control
Office of Environmental Quality Control
2600 Bull Street
Columbia, South Carolina 29201
(803) 734-5300

Application Drawings and Supplemental Information Requirements

The below listed supporting information will normally be required before a permit application or notification will be considered complete. For explanation of these requirements contact the Corps of Engineers.

1. A delineation of Waters of United States (including wetlands) for the project site must be provided. If a delineation has already been accomplished, please provide the identification number cited or a copy of the verification letter. In some cases, an approximation will be acceptable in lieu of a surveyed delineation. Contact the Corps of Engineers Regulatory Branch to determine what will be acceptable for your project.

2. A brief narrative description of the project.

3. A location map identifying the precise location of the work site must be provided on an 8½ by 11" size portion (or copy) of a USGS Quadrangle map. The name of the Quadrangle must be shown on the map. A county or local road map showing the project site must also be provided. All maps must have title blocks similar to the other drawing sheets.

4. Plan view of the project on 8½ by 11" size paper, clearly depicting all Waters of the United States (including wetlands), the areas proposed to be filled or modified, any mitigation areas, the property and/or lot boundaries, roadways, structure locations, location of high water and low water contours, and other relevant information. See the enclosed checklist for details on these drawing requirements.

5. Cross sections views through each fill and alteration in Waters of the United States (including wetlands) showing both existing and proposed contours. See the enclosed checklist for details on drawing requirements.

6. For other than single family lots a drainage and storm water management plan must be submitted directly to the SCDHEC. Contact the SCDHEC directly for drainage and storm water guidelines.

7. Proof of publication in a local newspaper. Contact the SCDHEC for instructions on this requirement.

8. For projects involving commercial or residential development an overall development plan must be provided. This plan must also be on 8½ by 11" size paper and must identify all alterations in U. S. Waters.

9. The projects latitude and longitude should be shown on the project plans.

10. The information contained on all drawings and maps must be readable and reproducible using non-color copiers. *Do not use color marking*. All plans must include title blocks showing the applicant's name, project name, project location, date of drawing, date of revision, and sheet number. Leave at least a ½ inch margin on all sides of each sheet for reproduction and binding.

11. For Nationwide Permit notifications, evidence is required that the prospective permittee has contacted:

(a) The USFWS and the NMFS regarding the presence of any Federally listed (or proposed for listing) endangered or threatened species or critical habitat in the permit area that may be affected by the proposed project; and any available information provided by those agencies.

(b) The SHPO regarding the presence of any historic properties in the permit area that may be affected by the proposed project; and the available information, if any, provided by that agency.

Application Drawings and Supplemental Information Requirements

12. If large scale development plans are available they must be provided to the agencies listed below.

U. S. Army, Corps of Engineers
Regulatory Branch
P. O. Box 919
Charleston, South Carolina 29402-0919

United States Department of Interior
Fish and Wildlife Service
P. O. Box 12559
Charleston, South Carolina 29412

National Marine Fisheries Service
Habitat Conservation Division
P. O. Box 12607
Charleston, SC 29422

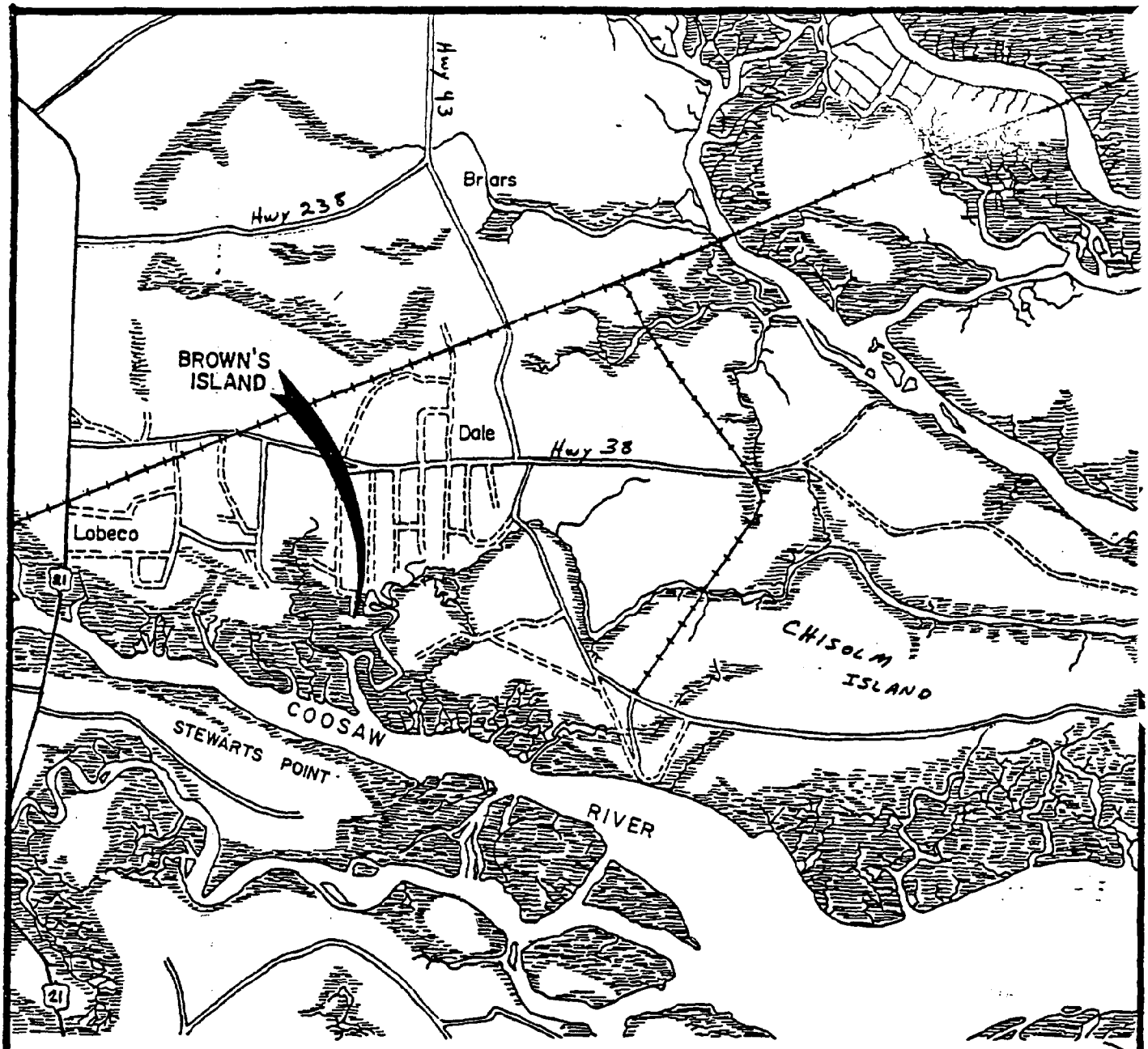
U. S. Environmental Protection Agency
Region IV, Wetlands Regulatory Unit
345 Courtland Street
Atlanta, Georgia 30365

S. C. Dept. of Archives and History
State Historic Preservation Office
P. O. Box 11669
Columbia, South Carolina 29211

S. C. Dept. of Natural Resources
Office of Environmental Programs
P. O. Box 12559
Charleston, South Carolina 29412

South Carolina Department of
Health and Environmental Control
Office of Water Quality Certification
2600 Bull Street
Columbia, South Carolina 29201

S. C. Dept. of Health and Environmental Control
Office of Ocean and Coastal Resource
Management
4130 Faber Place, Suite 300
Charleston, South Carolina 29405



File #873B386 Sample

VICINITY MAP

1000 0 1000 2000 3000

SCALE IN FEET

DATUM: MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:

1) STATE OF SOUTH CAROLINA
2) MR. McCLOUD
3) BROWNS ISLAND HOMEOWNERS ASSOCIATION

THOMAS & HUTTON ENGINEERING CO.
SAVANNAH, GEORGIA

PROPOSED ACTIVITY: COMMUNITY DOCK, BOAT RAMP, AND CAUSEWAY

AT: BROWN'S ISLAND

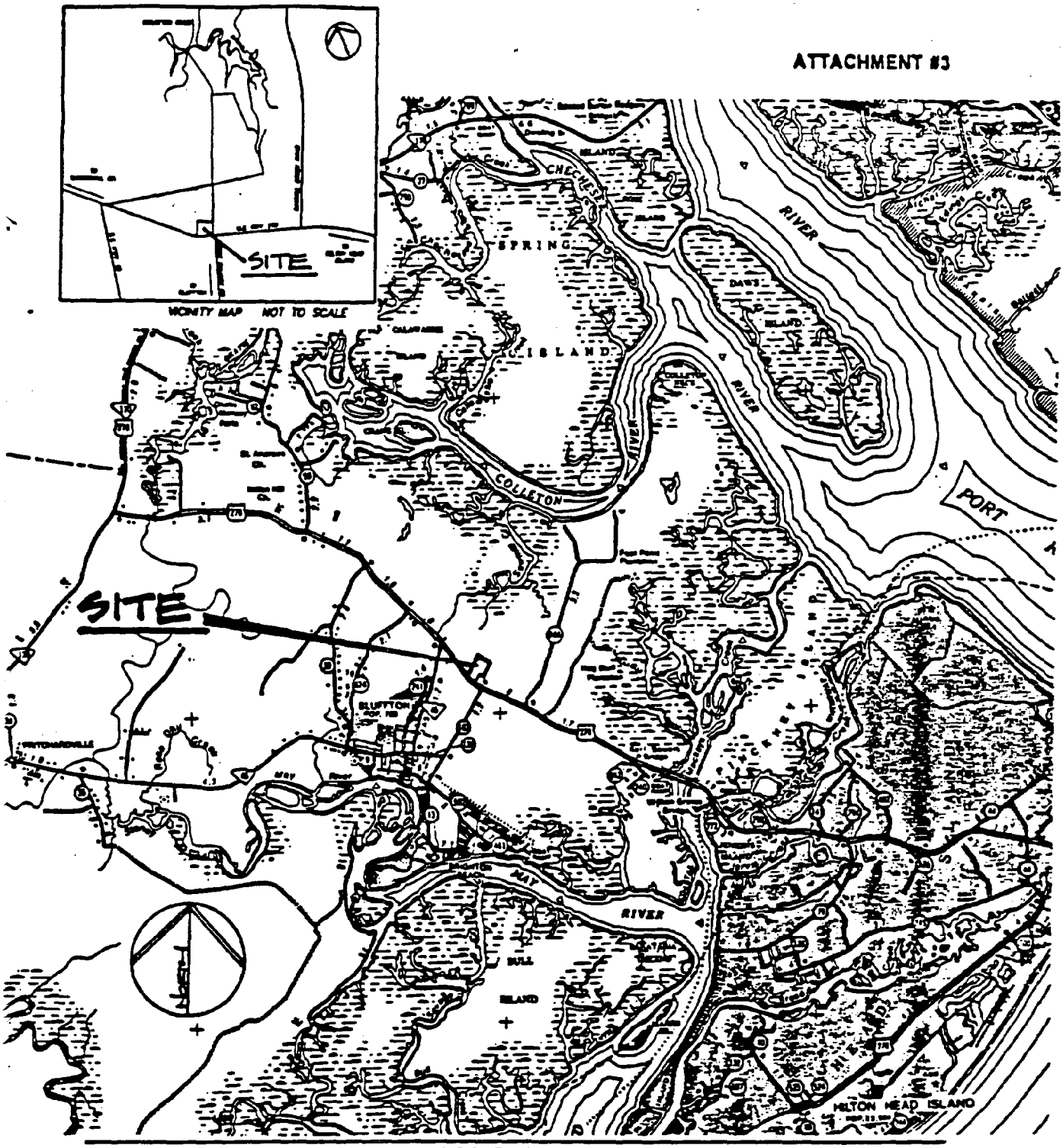
COUNTY OF: BEAUFORT

STATE OF: SOUTH CAROLINA

APPLICATION BY: BROWNS ISLAND HOMEOWNERS ASSOC.

DATE: NOV, 1987 SHEET 1 OF 7

ATTACHMENT #3



LOCATION MAP

DATE: 4/15/94

SHEET: 2 OF 7

DATUM: MSL

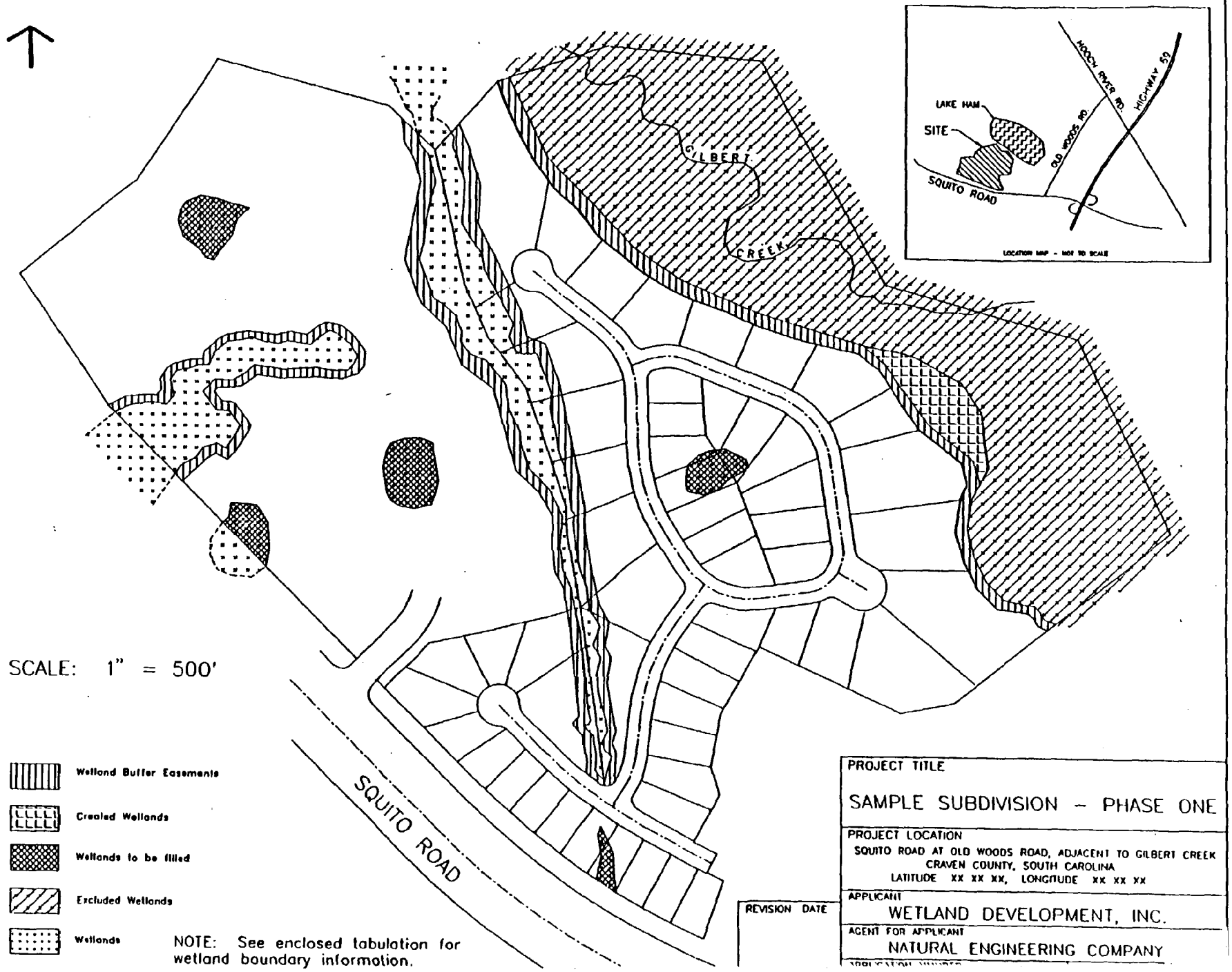
SCALE: 1"= 2 MI.

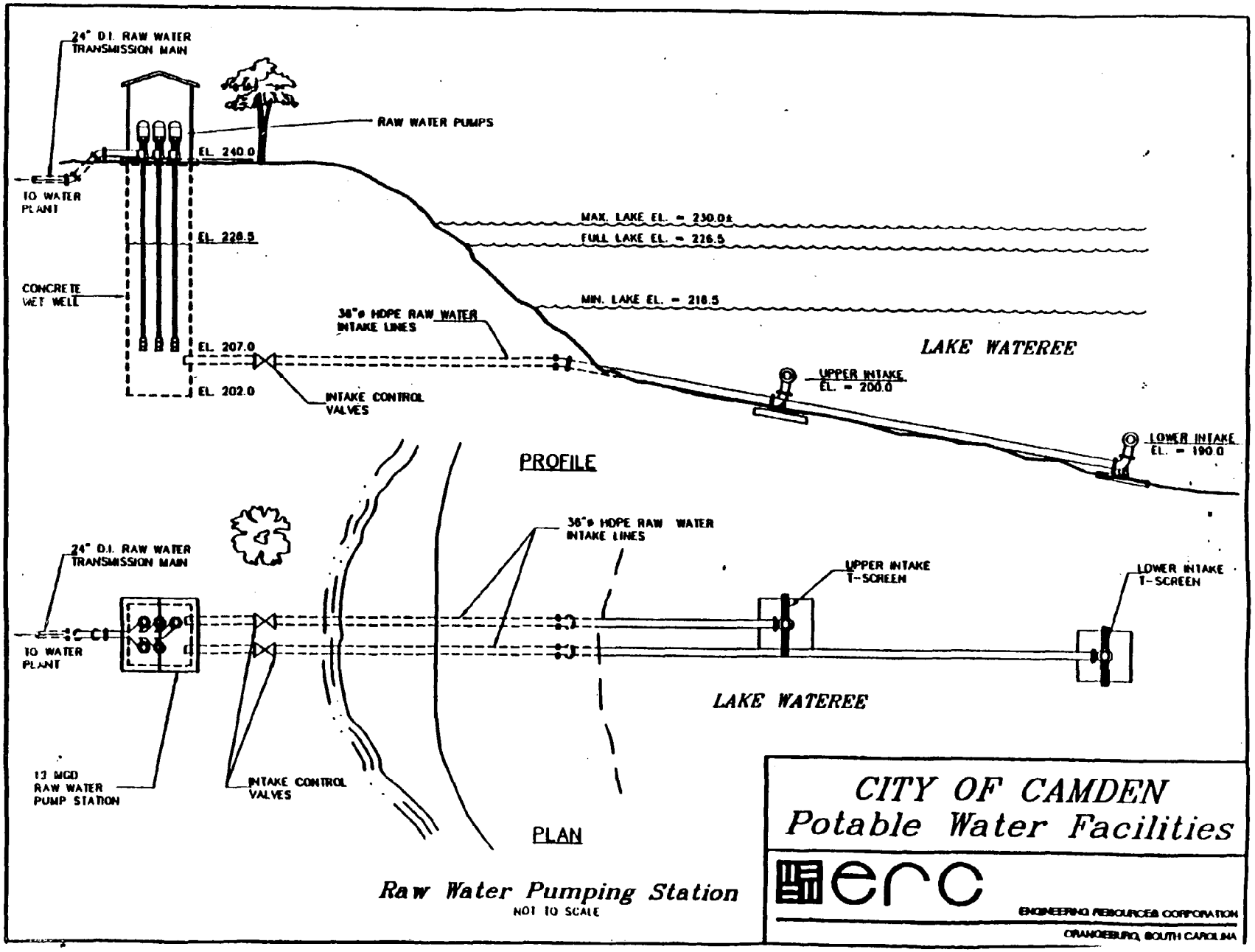
PROPOSED ACTIVITY: PLACE FILL IN 0.59 ACRES OF WETLANDS

APPLICANT: GRAY HOLDINGS, L.P.

COUNTY: BEAUFORT

MAP SOURCE: S.C. HIGHWAY MAP / BEAUFORT COUNTY

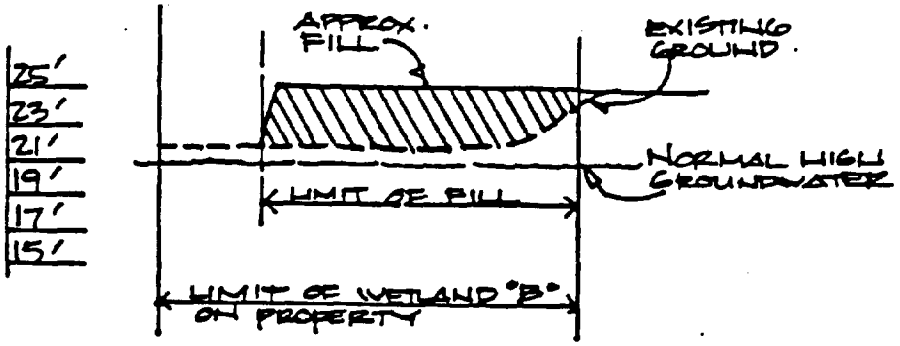

LAKE HAM
SITE
SQUITO ROAD
OLD WOODS RD.
HOOCH RIVER RD.
HIGHWAY 59
LOCATION MAP - NOT TO SCALE
GILBERT
CREEK
SQUITO ROAD
SCALE: 1" = 500'
Wetland Buffer Easements
Created Wetlands
Wetlands to be filled
Excluded Wetlands
Wetlands
NOTE: See enclosed tabulation for wetland boundary information.
REVISION DATE
PROJECT TITLE
SAMPLE SUBDIVISION - PHASE ONE
PROJECT LOCATION
SQUITO ROAD AT OLD WOODS ROAD, ADJACENT TO GILBERT CREEK
CRAVEN COUNTY, SOUTH CAROLINA
LATITUDE XX XX XX, LONGITUDE XX XX XX
APPLICANT
WETLAND DEVELOPMENT, INC.
AGENT FOR APPLICANT
NATURAL ENGINEERING COMPANY



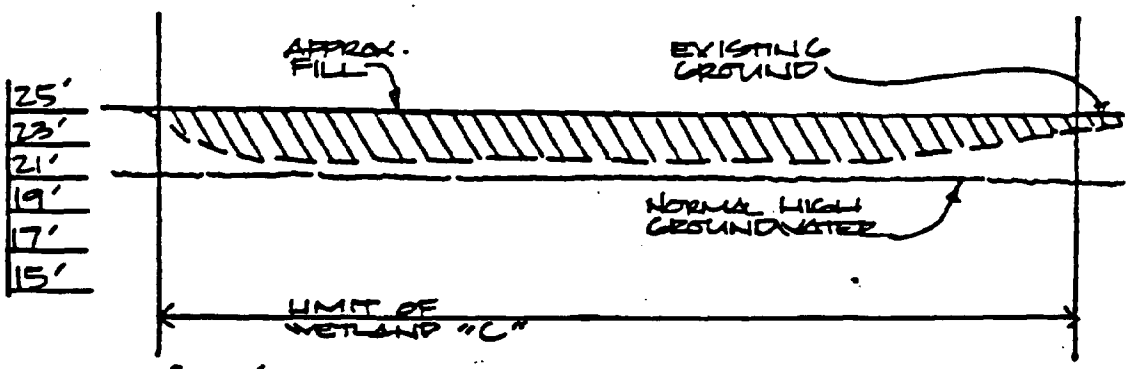
\675-02\RAW-W-PS.DWG
4/15/98

ATTACHMENT #6

SECTION A-A



SECTION B-B



SCALE: 1"= 10' VERTICAL
1"= 50' HORIZONTAL

CROSS SECTIONS

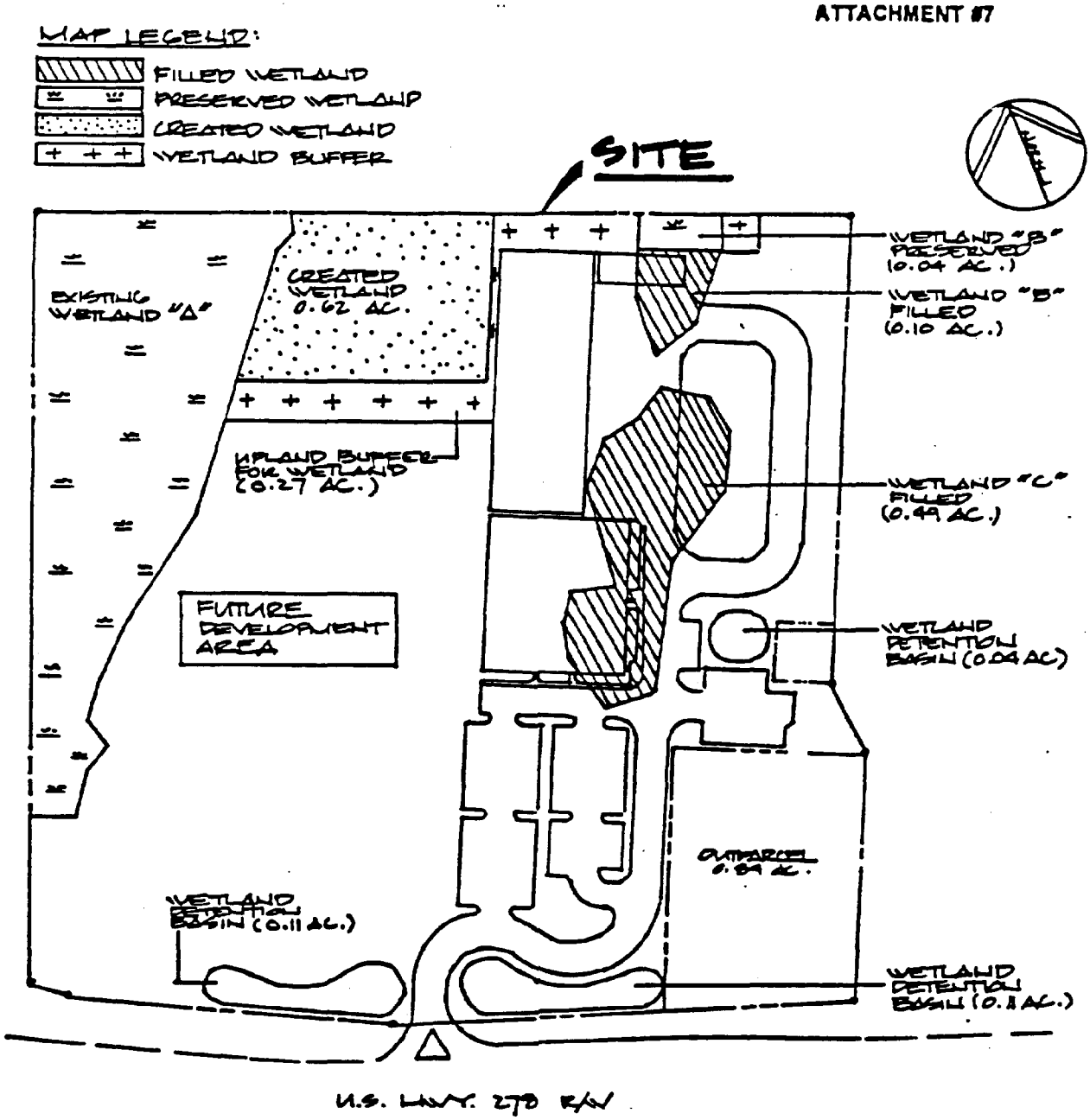
DATE: 4/15/94

FIGURE 5 OF 7
DATUM: MSL
SCALE: 1" = 10'/50'

PROPOSED ACTIVITY: PLACE FILL IN 0.59 ACRES OF WETLANDS
APPLICANT: GRAY HOLDINGS, L.P.
COUNTY: BEAUFORT

SOURCE: TOPO BY CONNOR & ASSOCIATES, INC. (4/7/94)

ATTACHMENT #7



MITIGATION PLAN

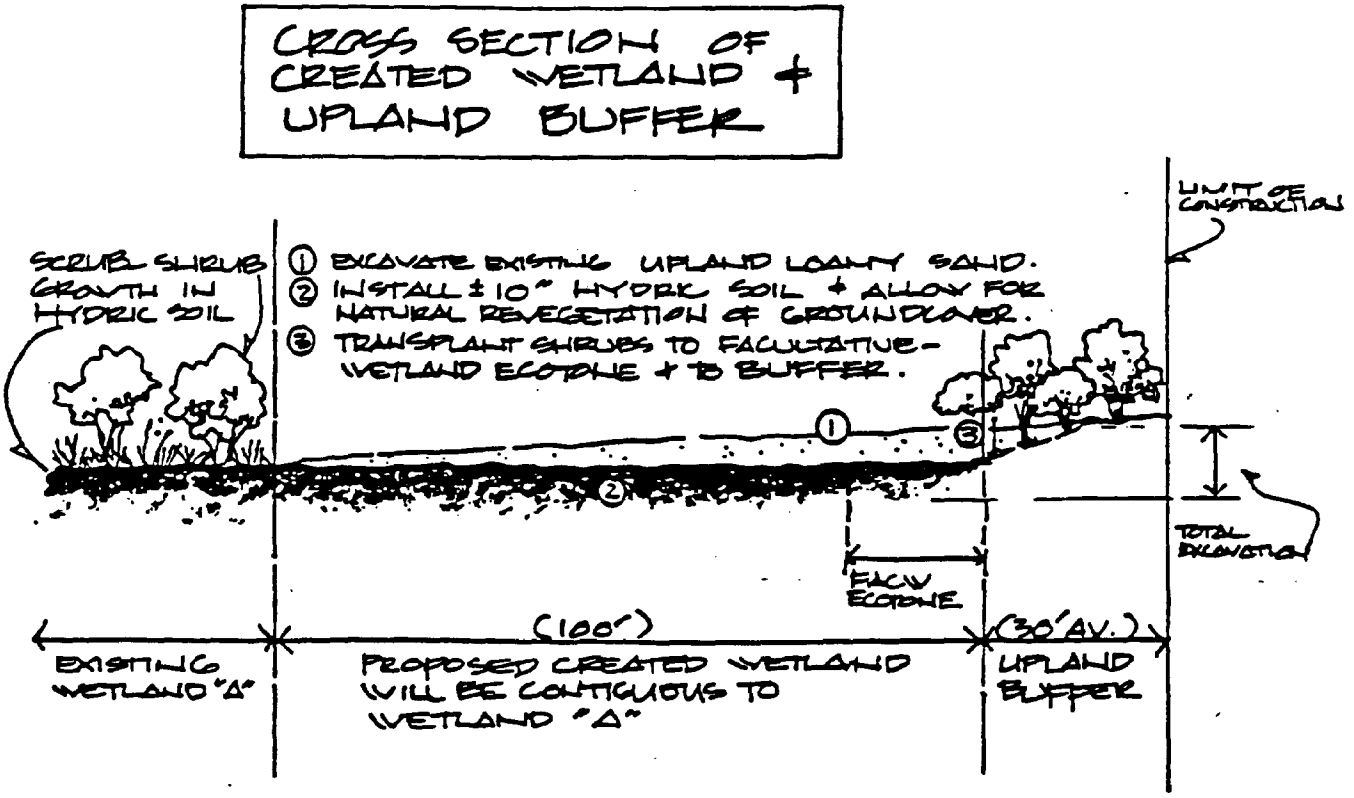
DATE: 4/15/94

FIGURE 6 OF 7
DATUM: MSL
SCALE: 1" = 60'

PROPOSED ACTIVITY: PLACE FILL IN 0.59 ACRES OF WETLANDS
APPLICANT: GRAY HOLDINGS, L.P.
COUNTY: BEAUFORT

SOURCE: BALLANTINE ENVIRONMENTAL RESOURCES (4/15/94)

ATTACHMENT #8



NOTE on HYDRIC SOIL:

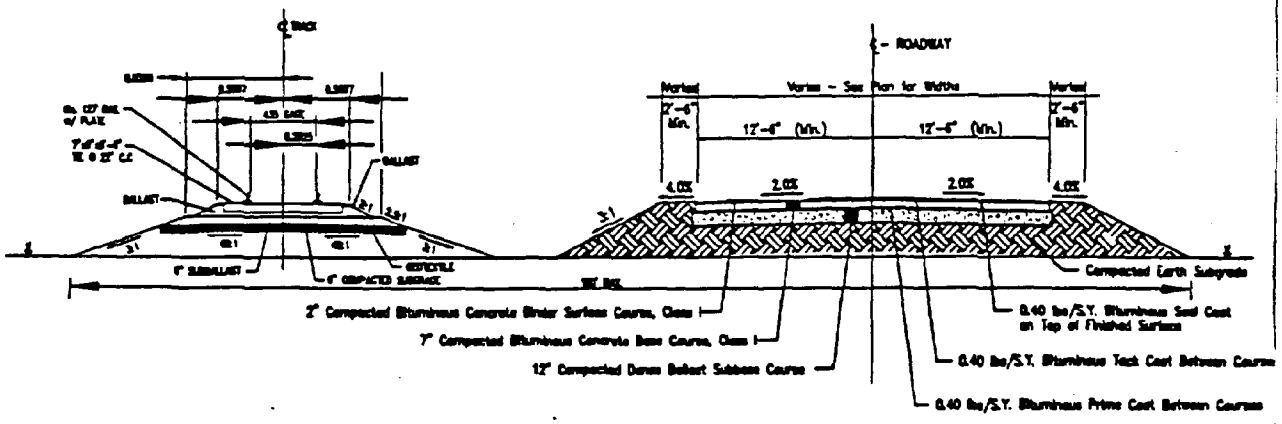
SOIL TO BE 10YR 2/1 MUNSELL VALUE/CHROMA WITH >95% COATED GRAINS + EVIDENCE OF SATURATION AT SURFACE.

DESIGN FOR CREATED WETLAND

DATE: 4/15/94

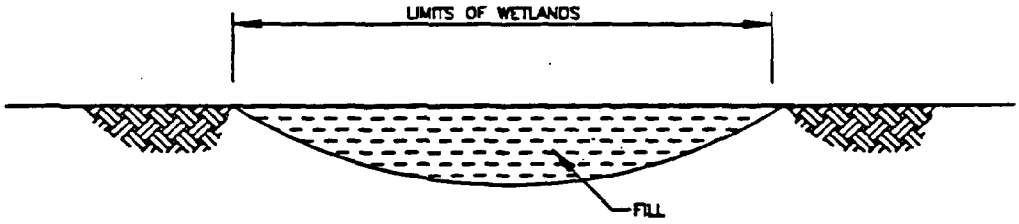
FIGURE 7 OF 7
DATUM: MSL
SCALE: VARIES PER DRAWING
SOURCE: BALLANTINE ENVIRONMENTAL RESOURCES (4/15/94)

PROPOSED ACTIVITY: PLACE FILL IN 0.59 ACRES OF WETLANDS
APPLICANT: GRAY HOLDINGS, L.P.
COUNTY: BEAUFORT



TYPICAL PAVED ROAD AND RAILROAD CROSS-SECTION
N.T.S.

ROAD AND RAIL CROSSING RC-A



TYPICAL CROSS-SECTION OF WETLAND TO BE FILLED
N.T.S.

NOTE: SEE SHEET 8 FOR WETLANDS TO BE FILLED

TYPICAL CROSS-SECTIONS

SCALE: NOT TO SCALE

SHEET: 57 OF 63

DATUM: MEAN SEA LEVEL

DATE: MAY 12, 1995

REV.: 1, 05-24-95

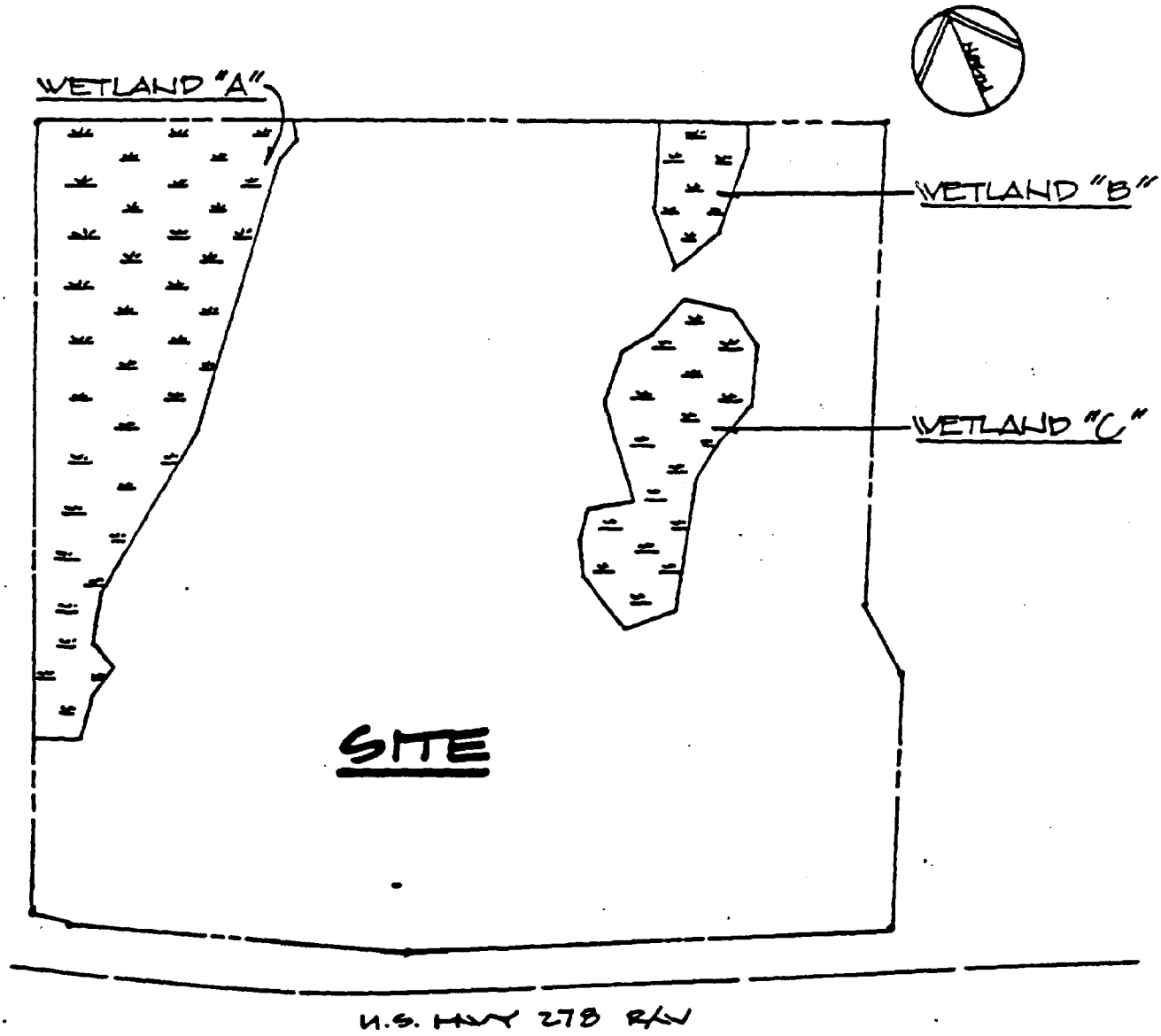
PROPOSED ACTIVITY:
WETLAND FILL FOR ACCESS AND INDUSTRIAL DEVELOPMENT

COUNTY:
BERKLEY, SOUTH CAROLINA

APPLICANT:
NUCOR STEEL

A00783-05-18-95

ATTACHMENT #4



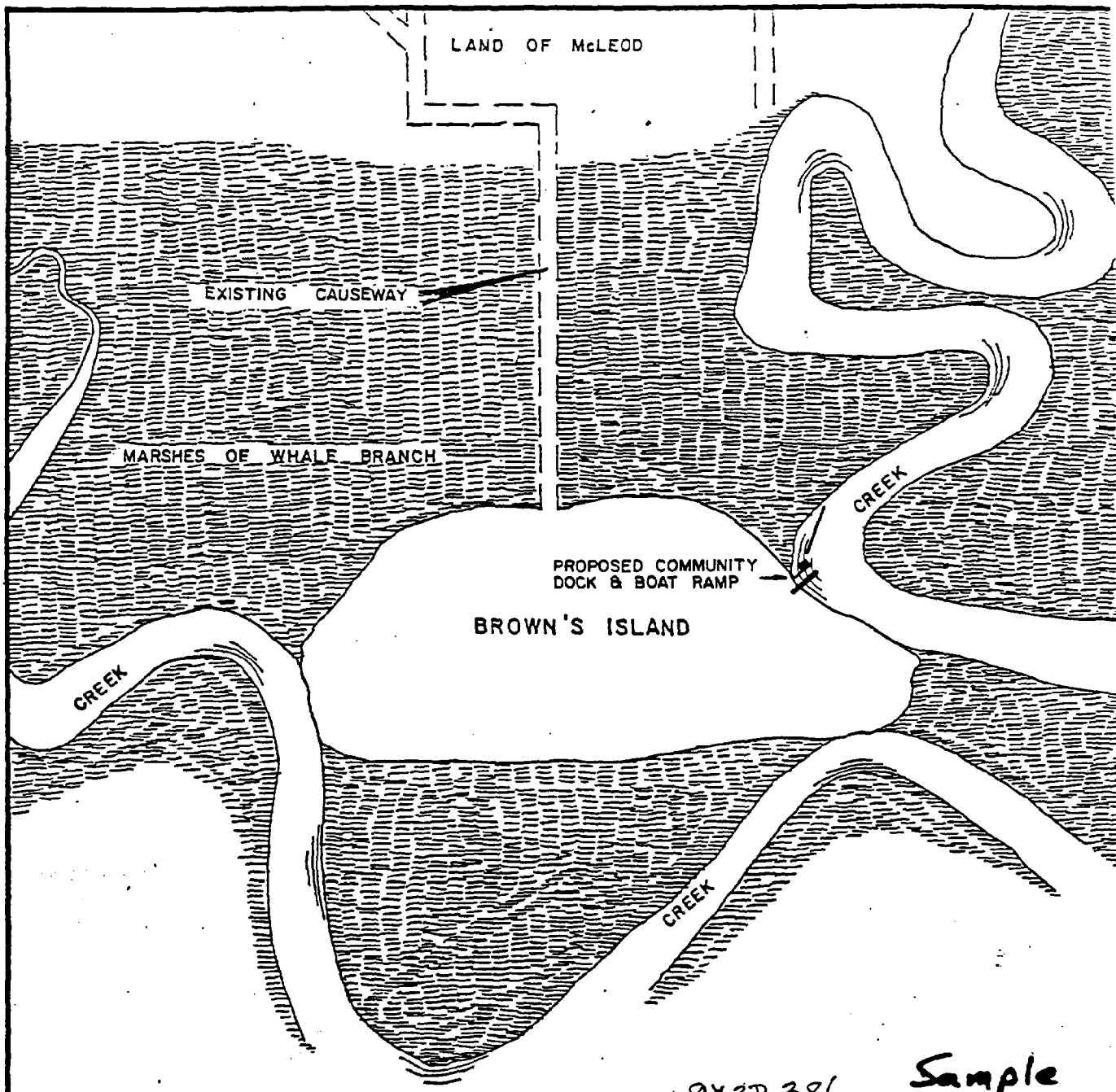
WETLAND LOCATION MAP

DATE: 4/15/94

SHEET: 3 OF 7
DATUM: MSL
SCALE: 1" = 60'

PROPOSED ACTIVITY: PLACE FILL IN 0.59 ACRES OF WETLANDS
APPLICANT: GRAY HOLDINGS, L.P.
COUNTY: BEAUFORT

MAP SOURCE: BALLANTINE ENVIRONMENTAL RESOURCES
COE LETTER OF DETERMINATION ATTACHED



Sample

#873B386

LOCATION MAP

PURPOSE: IMPROVE ACCESS TO BROWN'S ISLAND
DATUM: MEAN SEA LEVEL
ADJACENT PROPERTY OWNERS:

1) STATE OF SOUTH CAROLINA
2) MR McCLOUD
3) BROWNS ISLAND HOMEOWNERS ASSOCIATION

THOMAS & HUTTON ENGINEERING CO.
SAVANNAH, GEORGIA

PROPOSED ACTIVITY: COMMUNITY DOCK, BOAT RAMP, AND CAUSEWAY
AT: BROWN'S ISLAND
COUNTY OF: BEAUFORT
STATE OF: SOUTH CAROLINA
APPLICATION BY: BROWNS ISLAND HOMEOWNERS ASSOC.
DATE: NOV., 1987 SHEET 2 OF 7

_____
(DATE)

U. S. Army Corps of Engineers
Post Office Box 919
Charleston, South Carolina 29402-0919

Gentlemen:

This is to certify that the work subject to the jurisdiction of the U. S. Army Corps of Engineers as described in my application dated _____ is, to the best of my knowledge, consistent with the South Carolina Coastal Zone Management Program.

Since my project is located in the Coastal Zone of South Carolina, I understand that the Corps of Engineers must provide this statement to the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management for its review and that a Department of the Army permit will not be issued until the Office of Ocean and Coastal Resource Management concurs with my findings. I also understand that additional information concerning my project may be required by the Office of Ocean and Coastal Resource Management to facilitate its review of my project and that additional certifications may be required for other Federal or State authorizations.

_____
(PRINT NAME)

_____
(SIGNATURE)

_____
(STREET ADDRESS)

_____
(CITY & STATE)

STATE OF SOUTH CAROLINA

COUNTY OF _____

DECLARATION OF
RESTRICTIVE COVENANTS
FOR WETLANDS PRESERVATION

THIS DECLARATION OF RESTRICTIVE COVENANTS is made this ____ day of _____, 19__, by _____("Declarant*(s)*").

RECITALS

WHEREAS, Declarant*(s)* *is/are* the owner*(s)* of certain real property [*"real property" includes wetlands, lands underlying other waters of the U.S., uplands, associated riparian/littoral rights*] located in _____ County, South Carolina, more particularly described [*describe tract to be preserved, including: 1) acreage, 2) either a reference to recorded plat(s), or attach an approved permit drawing or site plan - see paragraph 10, and 3) any excluded property*] ("Property"); and

WHEREAS, in consideration of the issuance of Department of the Army Permit No. _____ ("Permit") to Declarant*(s)* by the U.S. Army Corps of Engineers, Charleston District ("Corps"), *and consistency certification by the S.C. Department of Health and Environmental Control, Office of Coastal and Resource Management ("OCRM")*, and for the protection or enhancement of the Property's wetlands, scenic, conservation, resource, environmental, or other values, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, Declarant*(s)* *has/have* agreed to place certain restrictive covenants on the Property, in order that the Property shall remain substantially in its natural condition forever, as provided herein.

NOW THEREFORE, Declarant*(s)* hereby declare*(s)* that the Property shall be held, transferred, conveyed, leased, occupied or otherwise disposed of and used subject to the following restrictive covenants, which shall run with the land.

1. Declarant*(s)* and *his/her/its/their (heirs,)* successors and assigns forever, *is/are* and shall be prohibited from the following: filling, draining, flooding, dredging, impounding, clearing, cultivating, excavating, constructing or erecting in, or otherwise altering or improving the Property; burning, systematically removing, cutting, or otherwise destroying vegetation on the Property in other than an incidental fashion; spraying with biocides; introducing exotic species into the Property; otherwise altering the natural state of the Property; and from changing the grade or elevation, impairing the flow or circulation of waters, reducing the reach of waters, and any other discharge or activity requiring a permit under federal or state clean water and water pollution control laws and regulations, as amended.

2. The following are excepted from paragraph 1: [*reference may be made to a mitigation plan approved by the Permit, provided all exceptions (including those relating to buffer areas) are specifically spelled out in the plan; OR, any exceptions may be specifically listed in this paragraph*].

3. Any request for modification of the Permit, or any other permit application or request for certification or modification which may affect the Property made to any governmental entity with authority over wetlands or other waters of the United States, shall expressly reference and include a copy of these restrictive covenants.

4. It is expressly understood and agreed that these restrictive covenants do not grant or convey to members of the general public any rights of ownership, entry or use of the Property. These restrictive covenants are created solely for the protection of the Property, wetlands, and associated values, and Declarant*(s)* reserve*(s)* the ownership of the fee simple estate and all rights appertaining thereto, including without limitation the rights to exclude others and to use the property for all purposes not inconsistent with these restrictive covenants.

5. The Corps, *OCRM*, (and any successor agencies) and *its/their* authorized agents shall have the right to enter and go upon the lands of the Declarant*(s), his/her/its/their (heirs,)* successors and assigns, to inspect the Property and take actions necessary to verify compliance with these restrictive covenants.

6. These restrictive covenants shall be binding upon the Declarant*(s), his/her/its/their (heirs,)* successors and assigns, and the restrictions herein shall be legally binding upon all subsequent owners, lessees, or other occupiers or users.

7. The Declarant*(s)* grant*(s)* to the Corps, the U.S. Department of Justice, *OCRM*, or any other governmental entity with jurisdiction over wetlands on the Property, a discretionary right to enforce these restrictive covenants or terms hereof in an action at law or in equity against any person*(s)* or other *entity/entities* violating or attempting to violate this Declaration of Restrictive Covenants; provided, however, that no violation of these restrictive covenants or terms hereof shall result in a forfeiture or reversion of title. In any enforcement action, an enforcing agency shall be entitled to a complete restoration for any violation, as well as any other remedy under law or in equity. An enforcing agency shall also be entitled to an award of costs and attorneys fees in any enforcement action in which it obtains relief. Nothing herein shall limit the right of the Corps to modify, suspend, or revoke the Permit.

8. Declarant*(s), his/her/its/their (heirs)*, successors and assigns shall include the following warning on all deeds, mortgages, plats, or any other legal instruments used to convey any interest in the Property:

> WARNING: This Property Subject to Declaration of Restrictive Covenants for Wetlands Preservation Recorded at [*insert book and page numbers (if Property lies in more than one county, of same county(ies) as instrument(s)) of Declaration*].

9. The perimeter of the Property shall at all times be plainly marked by permanent signs saying, "Protected Natural Area," or by an equivalent, permanent marking system.

[*Paragraph 10 - generally, a surveyed, recorded plat is required; however, at the discretion of the Corps and OCRM, an approved permit drawing or site plan attached to these restrictive covenants may suffice*]

10. A plat depicting the Property, entitled "Property Subject to Declaration of Restrictive Covenants for Wetlands Preservation," shall be recorded in the RMC office for each of the counties in which the Property is situated prior to the recording of these restrictive covenants. The plat*(s) is/are* recorded at [*include book and page references, county(ies), and date of recording*].

11. Should any separable part of these restrictive covenants be determined to be contrary to law, the remainder shall continue in full force and effect.

12. Declarant*(s)* may in the future request a modification of the Permit to substitute or trade property which is not encumbered by conservation easements or covenants, for, and in place of, the Property and restrictive covenants herein, provided such substitute or traded property is of greater values (wetlands, scenic, conservation, resource, environmental) than the Property herein, is placed under equivalent or more restrictive easements or covenants, and is otherwise consistent with mitigation law and policy, which discretionary determinations shall be made by the Corps *and OCRM* (or their successors), in consultation with resource agencies as appropriate.

IN WITNESS WHEREOF, the Declarant*(s) has/have* duly executed this Declaration of Restrictive Covenants the date first above written.

IN THE PRESENCE OF: Declarant*(s)*

_____ By: _____

_____ *Its:* _____

STATE OF SOUTH CAROLINA

PROBATE

COUNTY OF _____

PERSONALLY appeared before me _____, the undersigned witness, and made oath that *he/she* saw the within named _____ [, *by* _____, *its* _____,] sign, seal and as *his/her/its* act and deed, deliver the within named Declaration of Restrictive Covenants for Wetlands Protection; and that *he/she* with the other witness named above witnessed the execution thereof.

_____

[*signature of witness*]

SWORN to and subscribed before me
this ___ day of _____, 19___.

_____

NOTARY PUBLIC FOR SOUTH CAROLINA

My Commission Expires: _____

APPENDIX B

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
P. O BOX 919
CHARLESTON, SC 29402-0919

RB-SOP-93-01
Regulatory Branch - Standard Operating Procedure

5 January 1993

Nationwide Permits – Policies & Procedures

Table of Contents

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2. References.
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7. Decision Options and Thresholds.
8. Mitigation.
9. Delineations.
10. Restoration Plans.
11. Relevant Issues.
12. Glossary.
13. Signature Authority.
14. Authorizing Signature.

1. Purpose. The purpose of this SOP is to provide written guidance regarding the policies, interpretations, and procedures used by regulatory personnel in the processing of requests for verification or authorization under the Nationwide Permits (NWPs) found in 33 CFR Part 330 (effective 21 Jan 1992). It is the intent of this SOP to provide regulatory personnel, resource agencies, and the public with a framework that will provide predictability and consistency in the NWP process.

A key element of this SOP is the establishment of allowable impact thresholds with the goal that these will be used as project design criteria. Appropriate application of these criteria should minimize uncertainty in the NWP approval process and allow expeditious review of applications. However, nothing in this SOP shall be interpreted as a promise or guarantee that a project which satisfies the criteria or guidelines given herein will not be subject to the exertion of discretionary authority to revoke or suspend a NWP authorization. The Corps has a responsibility to consider each project on a case by case basis and may determine in any specific situation that authorization under a NWP should be modified, suspended, or revoked.

2. References. The following publications were used as background material in the development of this SOP. Any person using this SOP should make themselves aware of the pertinent aspects and requirements given in the referenced publications.

33 CFR Part 330.
40 CFR Part 230.
40 CFR Part 1508.
49 CFR Part 771.117.
CESAC Public Notice titled *Nationwide Permits*, dated 4 January 1992.
CESAC-CO-P SOP titled *Terminology and Definitions*, dated 9 December 1991.
The Inland Impoundment Policy of the SCWMRD.

3. **Notification Requirements.** The chart shown as *Attachment A* summarizes the NWPs requiring notification and the procedures and forms that apply in each case. Before doing any work requiring authorization under a NWP for which notification is required, the prospective permittee must submit written notification to the DE in accordance with the procedures stated in this SOP. Projects which qualify under one or more NWPs, and which do not require notification, other authorizations, or other permits may proceed without notification as long as the project is conducted in complete accordance with the terms and conditions of the NWP(s).

3.1. *General.* All notifications must be in writing and must be clear, readable, and reproducible using standard, non-color, office copy machines. All necessary signatures must be originals. Copied or faxed signatures will not be accepted. Instead of the designated forms attached to this SOP, the prospective permittee may provide notifications using the standard Individual Permit application form ENG 4345 provided that the application clearly states that it is for NWP notification and that all the required information is included with the notification.

3.2. *Processing Procedures.* Upon receipt of a notification the Corps will review the notification and determine which of the following procedures apply.

3.2.1. Incomplete Notifications. For notifications with incomplete information, the applicant will be instructed what additional information will be required to make the notification complete.

3.2.2. No Distribution. For requests for verification involving NWPs 1, 2, 3, 4, 6, 8, 9, 10, 15, 20, 24, 25, or 36 no public notice or other distribution is required.

3.2.3. Standard Procedures. For notifications involving NWPs 5, 12, 13, 14, 16, 17, 21, 22, 26, 34, 37, and 38 the notification and distribution procedures are given in *Attachment D* of this SOP.

3.3 *Special Cases.* Requirements for NWPs 7, 11, 18, 19, 23, 27, 28, 32, 33, 35, and 40 have certain exceptions or clarifications to the procedures stated in Attachment D. The exceptions and clarifications are as stated below.

3.3.1 Nationwide Permit 7. Webster defines the word *related* to mean that a logical or causal connection has been shown or established. Therefore, the term *related to construction of outfall structures* is interpreted to mean that such a connection has been established between some aspect of the overall project and the construction of the outfall structure. For example, if the project requires construction of roads, pump stations, bulkheads, fences, etc., which are logically or causally connected to the construction of the outfall structure itself, then such work is also a candidate for authorization under NWP 7. However, the Corps must review the proposed work under the notification process to verify that the individual and cumulative adverse effects will be minimal, that the activity is not contrary to the public interest, and that the activity complies with the terms and conditions of the nationwide permit. When considering whether or not the net adverse effects have been minimized and whether outfall relocations are in the public interest, the Corps will generally give substantial deference to the outfall relocations as proposed if such relocations are being conducted at the request or direction of the SCDHEC.

3.3.2 Nationwide Permit 11. For activities in Corps' reservoirs requiring notification under NWP 11, the prospective permittee must obtain the approval of the reservoir manager. The prospective permittee need not contact the DE provided the project complies with the terms and conditions of the NWP.

3.3.3 Nationwide Permits 18 and 33. Notification procedures for NWPs 18 and 33 are as stated in Attachment D with the following exceptions. For activities in all areas of South Carolina except the non-critical area of the coastal zone, the notification should use Form 2 and the Project Manager should follow Procedure 2 (a public notice is not required).

3.3.4 Nationwide Permit 23. Notification procedures for NWP 23 are as stated in Attachment D with the following exceptions.

a. For activities outside the non-critical areas of the coastal zone a public notice is not required.

b. In addition to those activities specified in Attachment D, certain NWP 23 activities which fall under the Federal Highway Administration (FHWA) categorical exclusions require notification. As stated in RGL 87-10, those FHWA activities which require notification are the activities occurring under paragraphs (c)(3), (c)(7), (c)(9), (c)(12) and all (d) paragraphs of 49 CFR Part 771.117 (published 27 Nov 1987). An extracted listing of these paragraphs is provided as *Attachment E*. The FHWA or local transportation agency to be funded by the FHWA should contact the Corps to review the project proposal to ensure that the proposed activities would have only minimal adverse individual and cumulative impacts on the aquatic environment.

3.3.5 Nationwide Permits 19, 27, 28, 32, 35, and 40. Notification procedures for these NWPs are as stated in Attachment D with the exception that for activities located outside of the non-critical areas of the coastal zone (which includes all counties outside of the coastal zone) no notification is required.

4. Regional Conditions. An extract of the *Conditions for Nationwide Permits* given in 33 CFR Part 330, Appendix A, is provided as *Attachment B* to this SOP. Regional Conditions for Nationwide Permits 12, 13, 14, 24, 36, and 38 have been issued for South Carolina. A copy of the regional conditions is provided as *Attachment C*. For emphasis, the regional conditions are also listed below. The regional conditions apply only to the specific activities indicated and must be complied with in order for authorization by the indicated NWP to be valid.

4.1. *Nationwide Permit #12.* That the nationwide permit authorizes only a single crossing of a waterbody and/or wetland and such crossing cannot run parallel with the wetland system. The permittee must take appropriate erosion control measures to prevent siltation of the adjacent wetlands.

4.2. *Nationwide Permit #13.* That the permittee must provide the District Engineer, Charleston District with notification in accordance with 33 CFR 330.1(e), before commencing work on any bank stabilization activity in South Carolina that would be located adjacent to an authorized Federal Navigation project. These Federal navigation areas include Adams Creek, Savannah River, Jeremy and Town Creek at McClellanville, Village Creek at Beaufort, the Charleston Harbor Navigation Project (to include the federal navigation channels in Shipyard River, Wando River, Town Creek, and channels at the Naval Weapons Station), Georgetown Harbor, Little River Inlet, Murrells Inlet, Main Creek at Murrells Inlet, Port Royal Harbor, Waccamaw River, and the Atlantic Intracoastal Waterway (AIWW).

4.3. *Nationwide Permit #14.* That the use of this permit is prohibited in waters that the S. C. Department of Health and Environmental Control has classified as Outstanding Resource Waters (ORW). Additionally, the use of this permit is limited to one crossing per project provided no other permits (nationwide or otherwise) are required to develop the project site, unless waived by the S. C. Coastal Council. The permittee must take appropriate erosion control measures to prevent siltation of the adjacent wetlands.

4.4. *Nationwide Permit #24.* That the state administered 404 program must be consistent with the Coastal Zone Management Program.

4.5. *Nationwide Permit #36.* That, in addition to the restrictions currently imposed by the nationwide permit, the following restrictions are added:

a. That the boat ramp width cannot exceed 10 feet.
b. That only one boat ramp is constructed on a single family residential lot.
c. That its use is limited to private, non-commercial activities.

4.6. *Nationwide Permit #38.* That once the activity authorized by this nationwide permit is complete, any special aquatic sites, including wetlands, that were impacted by the activity must be restored to pre project conditions or a mitigation proposal must be submitted that adequately compensates the impacts to the wetlands.

A restoration or mitigation plan and time table must be submitted to the District Engineer. The District Engineer or his designee will conduct a site inspection after the restoration/mitigation has been completed to insure compliance.

5. The Decision Period. After forwarding a notification, an applicant may presume that his project qualifies for the NWP unless he is otherwise notified by the Corps within a 30 day period. If the Corps notifies the applicant that the notification is incomplete, a new 30 day period will commence upon receipt of the revised notification. The prospective permittee may not proceed with the proposed activity before expiration of the 30 day period unless otherwise notified by the DE. If the Corps fails to act within the 30 day period, the DE must use the procedures of 33 CFR 330.5 in order to modify, suspend, or revoke the NWP authorization. The 30 day period will be as follows:

a. For notifications which do not require issuance of a Public Notice, the 30 day period starts on the date of receipt of the notification in the Corps' district office and ends 30 calendar days later regardless of weekends or holidays.

b. For notifications which require issuance of a Public Notice, the 30 day period starts on the date of receipt of the notification in the Corps' district office and ends 30 calendar days later regardless of weekends or holidays.

c. If a wetland delineation is required, the 30-day period will not start until the wetland delineation has been completed.

6. Review of Notifications. The terms and conditions of certain NWPs require the Corps to review the proposed activity before the NWP authorizes its construction. However, the Corps has the authority to review any activity authorized by NWP to determine whether the activity complies with the NWP. The Corps will review all notifications and determine if the individual and cumulative adverse environmental effects are more than minimal.

6.1. *Consideration of State and Local Permitting Authorities.* The Corps will deny without prejudice any activity which has been denied any necessary State or local authorizations.

6.2. *Consideration of Comments.* The Corps will consider any comments received concerning the proposed activity's compliance with the terms and conditions of a nationwide permit and the need for mitigation to reduce the project's adverse environmental effects to the minimal level. The Corps will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency. The Corps will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered.

6.3. *Consideration of Discretionary Authority.* As stated in 33 CFR 330.1(d) and 330.4(e), DEs have been delegated a discretionary authority to suspend, modify, or revoke individual authorizations under an NWP. This authority may be used to condition or restrict the applicability of an NWP for cases where the Corps has concerns for the aquatic environment under the Clean Water Act Section 404(b)(1) Guidelines or for any factor of the public interest. When deciding whether to exercise discretionary authority to modify, suspend, or revoke a case specific activity's authorization under an NWP, the Corps shall follow the procedures and guidelines given in 33 CFR Part 330.5.

7. Decision Options and Thresholds. The decision options following the notification review are as follows.

7.1. *Authorize Without Modification.* If the Corps determines that the activity meets the terms and conditions of the NWP and that the individual and cumulative adverse impacts are minimal and that no additional conditions are necessary, then the Corps will notify the permittee that he may proceed in accordance with the provisions of the NWP.

7.2. *Modify the NWP Authorization.* The Corps may add activity specific conditions to ensure that the activity complies with the terms and conditions of the NWP and that the adverse impacts on the aquatic environment and other aspects of the public interest are individually and cumulatively minimal.

7.3. *Require Mitigation.* If the Corps determines that the adverse effects are more than minimal, the Corps may notify the prospective permittee that he may propose measures to mitigate the loss of special aquatic sites, including wetlands, to reduce the adverse impacts to minimal. The prospective permittee may elect to propose mitigation with the original notification. The Corps will consider any proposed mitigation when deciding if the impacts are minimal. The Corps shall add activity specific conditions to ensure that the mitigation will be accomplished. If sufficient mitigation cannot be developed to reduce the adverse environmental effects to the minimal level, the Corps will not allow authorization under the NWP and will instruct the prospective permittee on procedures to seek authorization under an Individual Permit.

7.3.1. Thresholds. As a general rule, personnel in the Charleston District Regulatory Branch will routinely conclude that notifications involving total adverse ecological effects of more than one acre will cause more than minimal adverse effects and therefore cannot be authorized under NWP unless sufficient compensatory mitigation is submitted to reduce the adverse effects to the minimal level. Notifications involving impacts of less than one acre will be reviewed on an individual basis to determine whether or not the impacts are at the minimal level. Notwithstanding the above, not all activities affecting more than one acre will cause more than a minimal adverse effect. Therefore, each proposed activity must be evaluated on a case-by-case basis. Additionally, there may be cases where the required mitigation will be in keeping with the guidance given in 33 CFR Part 330, Appendix A.

7.3.2. State Approved Plan. In determining if a proposed compensatory mitigation plan which has been approved by the State permitting agency is sufficient to reduce the adverse ecological effects to the minimal level, the Corps will use the following guidelines.

a. If there were no written concerns or objections received from any resource agency, then the Corps will usually consider the mitigation to be sufficient.

b. If written concerns or objections were received from any resource agency in response to the Public Notice, then the Corps will contact that agency to determine if the mitigation plan resolves the agency's concerns.

(1) If the agency states that the concerns have been satisfied, then the Corps will usually consider the mitigation to be sufficient.

(2) If the agency states that the concerns have not been satisfied then the Corps will conduct an evaluation of the mitigation plan using the criteria given in the SOP on Compensatory Mitigation for Nationwide Permits and Small Projects. Following this evaluation the Corps will decide whether or not the concerns of the resource agency have sufficient merit to modify, condition, or deny the proposed mitigation plan. If the Corps determines that the agency's concerns do not have sufficient merit then the Corps may accept the mitigation plan. The Corps will document the evaluation and factors considered in making this determination in the record.

7.3.3. State Approval not Required. In determining if a proposed compensatory mitigation plan for which state approval has been waived or is not required is sufficient to reduce the adverse ecological effects to the minimal level, the Corps will use the criteria given in the SOP on Compensatory Mitigation for Nationwide Permits and Small Projects.

7.4. *Require an Individual Permit Application.* If the adverse effects are more than minimal and if sufficient mitigation cannot be developed to reduce the adverse environmental effects to the minimal level, the Corps will not allow authorization under the NWP and will instruct the prospective permittee on procedures to seek authorization under an Individual Permit.

7.4.1. Thresholds. The following categories of activities are hereby defined as ones that will routinely be considered to cause more than minimal adverse ecological effects and ones which cannot be reduced to a minimal level through mitigation. Therefore, notifications involving these categories of activities will have a greater likelihood than normal of being subject to the exertion of discretionary authority to require an Individual Permit. However, the Corps must consider each notification on a case specific basis and these restrictions are intended to be used only as guidelines.

a. Projects with total adverse ecological effects which exceed 5 acres or 10% of the total project area, whichever is greater. Total project area shall be calculated consistent with the subdivision policy in Article 11.2.

b. Projects which affect Waters of the United States of the types listed below, regardless of the acreage thresholds given in paragraph 7.4.1.a.

(1) Carolina Bays which have been identified through surveys by the SCWMRD, Heritage Trust, or the Nature Conservancy as priority areas.

(2) Palustrine habitats (swamps and marshes) which are flooded for sufficient frequency and duration to warrant a National Wetland Inventory water regime modifier of C (seasonally flooded) or wetter (e.g., PFO1C, PEM1C, PSS1C, etc.), and whose vegetative community is dominated by cypress or swamp tupelo.

(3) Trout streams and their adjacent wetlands.

(4) Streams and swamps dominated by Atlantic white cedar.

(5) Longleaf pine savannahs.

c. Projects which are contrary to the *Inland Impoundment Policy* of the SCWMRD, regardless of the acreage thresholds given in paragraph 7.4.1.a. In particular, the following activities are considered to be contrary to the SCWMRD policy.

(1) Impoundments on perennial streams where there is no downstream impoundment between the project site and the nearest State or Federal navigable waterbody.

(2) Impoundments on perennial or intermittent streams when the project's adverse effects are 3 acres or more.

(3) Impoundments adjacent to, but not blocking, a stream (perennial or intermittent) where the project's adverse effects are 3 acres or more.

8. Compensatory Mitigation Plans. As previously stated, authorizations for projects which have more than minimal adverse effects will require mitigation. The mitigation must be sufficient to reduce the adverse effects to the minimal level. When a compensatory mitigation plan for adverse ecological effects is required for a project, the plan will normally be considered acceptable if it meets the criteria stated in the SOP on Compensatory Mitigation for Nationwide Permits.

9. Delineations. For some NWPs, the notification must include a complete delineation of special aquatic sites. Delineations must be in accordance with the current method required by the Corps. The applicant may ask the Corps to delineate the aquatic sites. There may be some delay if the Corps does the delineation. Furthermore, the 30-day period will not start until the wetland delineation has been completed. Charleston District has defined a *completed delineation* to mean a delineation that has been verified by the Corps. For small projects with minimal or near minimal impact to special aquatic sites, the PM has the discretion to accept an approximate delineation as the verified delineation. Applicants are responsible for providing information with their submittal that evidences that a delineation has been conducted and the delineation has been verified by the Corps.

10. Restoration Plans. When restoration plans are required (e.g., NWPs 33 or 38) they must generally conform with the guidelines, drawing requirements, etc., given for mitigation plans in the Charleston District SOP on Compensatory Mitigation for Nationwide Permits.

11. Relevant Issues. The following topics, which are discussed in 33 CFR Parts 320-330 and elsewhere, are considered particularly noteworthy and are thus presented here for emphasis.

11.1. *Piecemealing.* The following discussion regarding piecemealing supersedes the Regulatory Branch SOP on Piecemealing dated February 16, 1990. In its most elementary form, piecemealing involves the bit-by-bit alteration of a given area by a series of minor authorizations rather than by comprehensive master planning. As pointed out at 33 CFR 320.4(b)(3), while a particular alteration may constitute a minor change, the cumulative effect of a number of changes can result in a major impairment of the resource. In order to discourage piecemealing the following policy will be used for all NWP authorizations. Once a project avails itself of a NWP authorization, additional NWP authorizations for work which is not clearly shown on the original permit plans will be viewed unfavorably. This position will stand unless a convincing argument can be presented that the additional work is totally unrelated to that which is already permitted and that it was unforeseeable at the time of the prior authorization. It is recognized that there may be an occasional unusual case where the application of this policy may be unreasonable. In those instances, coordination with the resource agencies to obtain their views will be required before preparing a letter for the Branch Chief's signature. Letters authorizing additional NWPs for a project or subdivision will not be signed by Project Managers.

11.2 *Real Estate Subdivisions.* The policy stated in Article 11.1 of this SOP also applies to any real estate subdivision created or subdivided after October 5, 1984. This means that if a developer obtains one or more NWPs for the original subdivision development, then additional NWP applications from future lot owners, builders, etc., should be viewed unfavorably and discretionary authority should routinely be exerted to require an Individual Permit. As stated above, it is recognized that there may be an occasional unusual case where the application of this policy may be unreasonable. Department of the Army regulations allow the DE some discretion in this area but require that his findings be in writing.

Subdivisions or parcels for which a written exemption determination has been reached in accordance with the procedures specified in 33 CFR 330, Appendix A(B)(26) will not be subject to the restrictions given in Article 11.2 of this SOP. However, each single and complete project within the subdivision is subject to the restrictions given in Article 11.1. This means that even if an exemption is granted for the subdivision, an individual owner or developer may not piecemeal his property or project.

The underlying purpose for the above subdivision policy is to encourage the original developer to prepare a comprehensive plan which considers all aquatic areas and follows the avoid, minimize, compensate sequence. It is generally not acceptable for a developer to layout a subdivision such that numerous parcel or lot owners will subsequently be required to obtain NWPs to make use of their property. However, it is equally unacceptable for the DE to limit a landowner owning 100,000 acres of contiguous parcels to less than ten acres of wetland impacts under the NWP program. Hence the exemption allowances.

11.3. *Combining NWPs and Individual Permits.* 33 CFR 330.6(d) states that subject to the following qualifications, portions of a larger project may proceed under the authority of the NWPs while the Corps evaluates an Individual Permit application for other portions of the same project, but only if the portions of the project qualifying for NWP authorization would have independent utility and are able to function or meet their purpose independent of the total project. When the functioning or usefulness of a portion of the total project qualifying for an NWP is dependent on the remainder of the project, such that its construction and use would not be fully justified even if the Corps were to deny the Individual Permit, the NWP does not apply and all portions of the project must be evaluated as part of the Individual Permit process.

11.3.1. When a portion of a larger project is authorized to proceed under an NWP, it is with the understanding

that its construction will in no way prejudice the decision on the Individual Permit for the rest of the project. Furthermore, the Individual Permit documentation must include an analysis of the impacts of the entire project, including related activities authorized by NWP.

11.3.2. As stated in 33 CFR 330.6(d)(2), NWPs do not apply, even if a portion of the project is not dependent on the rest of the project, when any portion of the project is subject to an enforcement action by the Corps or EPA.

11.4. *Multiple NWPs.* As stated in 33 CFR 330.6(d), two or more different NWPs can be combined to authorize a "single and complete project." However, the same NWP cannot be used more than once for a single and complete project.

11.5. *After-the-Fact Authorizations.* As stated in 33 CFR 330.6(e), these authorizations often play an important part in the resolution of violations. In appropriate cases where the activity complies with the terms and conditions of an NWP, the Corps can elect to use the NWP for resolution of an after-the-fact permit situation following a consideration of whether the violation being resolved was knowing or intentional and other indications of the need for a penalty. For example, where an unauthorized fill meets the terms and conditions of NWP 13, the Corps can consider the appropriateness of allowing the residual fill to remain, in situations where said fill would normally have been permitted under NWP 13. A knowing, intentional, willful violation should be the subject of an enforcement action leading to a penalty, rather than an after-the-fact authorization. Use of after-the-fact NWP authorization must be consistent with the terms of the Army/EPA Memorandum of Agreement on Enforcement.

12. **Glossary.** Unless otherwise indicated, all acronyms, abbreviations, and terms used in this document are in accordance with the definitions given in Charleston District Regulatory Branch's SOP titled *Terminology and Definitions*. Other useful definitions are given at 40 CFR Part 1508 and at 40 CFR Part 230.3. Certain additional terms relevant to this SOP are defined below. The relevant source for each of the following definitions is indicated in parentheses following the definition.

Completed delineation means a delineation that has been verified by the Corps. (District Policy)

Discretionary authority means the authority described in 33 CFR sections 330.1(d) and 330.4(e) which the Chief of Engineers delegates to Division or District Engineers to modify an NWP authorization by adding conditions, to suspend an NWP authorization, or to revoke an NWP authorization and thus require Individual Permit authorization. (33 CFR 330.2)

Minimal is defined by Webster to mean constituting the least possible in size, number, or degree. Actions for minimizing the adverse effects of discharges are given in the 404(b)(1) guidelines at 40 CFR Part 230, Subpart H. Additional guidance given in the discussion section of 33 CFR part 330 states that interpretation of what is considered "minimal" is left to the discretion of the DE. The discussion further states that what is considered "minimal" can vary from state to state, county to county, watershed to watershed. The factors used in determining what is minimal must be based on the environmental setting of the District and the project. (Webster, 40 CFR 230, and 33 CFR 330 Supplementary Information)

Real estate subdivision includes circumstances where a landowner or developer divides a tract of land into smaller parcels for the purpose of selling, conveying, transferring, leasing, or developing said parcels. This includes the entire area of a residential, commercial or other subdivision, including all parcels and parts thereof. (33 CFR 330, Appendix A(B)(26))

Single and complete project means the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. For example, if construction of a residential development affects several different areas of a headwater or isolated water, or several different headwaters or isolated waters, the cumulative total of all filled areas should be the basis for deciding whether or not the project will be covered

by an NWP. For linear projects, the "single and complete project" (i.e. single and complete crossing) will apply to each crossing of a separate water of the United States (i.e. single waterbody) at that location; except that for linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies. (33 CFR 330.2)

Special aquatic sites means wetlands, mud flats, vegetated shallows, coral reefs, riffle and pool complexes, sanctuaries, and refuges as defined at 40 CFR 230.40 thru 230.45. (33 CFR 330.2)

Terms and conditions. The "terms" of an NWP are the limitations and provisions included in the description of the NWP itself. The "conditions" of NWPs are additional provisions which place restrictions or limitations on all of the NWPs. These are published with the NWPs. Other conditions may be imposed by district or division engineers on a geographic, category-of-activity, or activity-specific basis (See 33 CFR 330.4(e)). (33 CFR 330.2)

Threshold means the level, point, or value above which something is true or will take place and below which it is not true or will not take place. For the purposes of this SOP, the thresholds given herein are considered to be levels of adverse impacts caused by the project above which the project fails to meet the conditions, limitations, restrictions, or other requirements specified in 33 CFR Part 330 or other relevant laws or regulations. (Webster)

Verified delineation means a delineation which the Corps has approved as a true or acceptable representation of the limits and locations of all indicated special aquatic sites, including wetlands, within the specified boundaries. (District Policy)

Acronyms and Abbreviations.

CFR	Code of Federal Regulations
CoE	Corps of Engineers
DA	Department of the Army
DE	District Engineer
EPA	U. S. Environmental Protection Agency
FWS	U. S. Fish and Wildlife Service
IP	Individual Permit
NMFS	National Marine Fisheries Service
NWP	Nationwide Permit
OCE	Office of the Chief of Engineers
PN	Public Notice
PM	Project Manager
RGL	Regulatory Guidance Letter
SCCC	South Carolina Coastal Council
SCDHEC	South Carolina Department of Health and Environmental Control
SCWMRD	South Carolina Wildlife and Marine Resources Department
SCWRC	South Carolina Water Resources Commission
SOP	Standard Operating Procedure

13. Signature Authority. All letters regarding Nationwide Permits will be signed at the appropriate authority level indicated below. Any letters which do not fall into one of the categories listed below shall be signed by the District Engineer or his designated representative.

13.1. *Routine Actions.* The following categories of letters regarding Nationwide Permits are considered routine actions and may be signed by Project Managers except that any letter falling into a category listed under Article 13.2. or 13.3, shall be signed by the authority level indicated in that article.

a. Letters responding to requests for information.
b. Letters responding to requests for delineations or verification of delineations.
c. Letters requesting additional information from applicants.

13.2. *Standard Actions.* The following categories of letters regarding Nationwide Permits are considered standard actions and will be signed by the Chief of the Permits Processing Section except that any letter falling into a category listed under Article 13.1. or 13.3, shall be signed by the authority level indicated in that article.

a. Letters approving mitigation plans.
b. Letters approving restoration plans.
c. Letters resolving enforcement actions.
d. Letters verifying that an activity is authorized by one or more Nationwide Permits.

13.3. *Special Actions.* The following categories of letters regarding Nationwide Permits are considered special actions and must be signed at the authority level indicated below.

a. All letters of denial shall be signed by the District Engineer or his designated representative.

b. All letters verifying that a project qualifies for authorization under one or more NWPs when any resource agency is recommending that an individual permit should be required for that project shall be signed by the District Engineer or his designated representative.

c. All letters imposing special conditions which the applicant has not agreed to or project modifications which the applicant has not agreed to shall be signed by the District Engineer or his designated representative.

d. All letters verifying that a project qualifies for authorization under one or more NWPs when the proposed mitigation credits are less than the required mitigation credits as calculated under the District SOP on Mitigation for Nationwide Permits and Small Projects, shall be signed at the level authorized in that Mitigation SOP.

e. All letters verifying that a project qualifies for authorization under one or more NWPs when the proposed mitigation plan deviates significantly from the policies and guidance given in the District SOP on Mitigation for Nationwide Permits and Small Projects, excluding variances covered in 13.3.d above, shall be signed by the District Engineer or his designated representative.

14. Authorizing Signature. By the signature given below, this SOP is authorized as official policy of the Regulatory Branch, Charleston District Corps of Engineers.

Clarence A. Ham, Chief
Regulatory Branch
Charleston District

Submittal Requirements for Nationwide Permits in Charleston District

Nationwide Permit Topic	Certification Status		Summary of Notification Requirements				
	SCDHEC	SCCC	Procedure	Form	Delineation Required	Notification Required	Applicable Notes
1. Aids to Navigation		Yes			No	No	
2. Structures in Artificial Canals		Yes			No	No	
3. Maintenance	Yes	Yes			No	No	
4. Fish & Wildlife Devices	Yes	Yes			No	No	
5. Scientific Measurement Device	Yes	Yes	2	Form 2	No	Yes	See note 1.
6. Survey Activities		Yes			No	No	
7. Outfall Structures	Yes	Yes	2	Form 2	No	Yes	
8. Oil and Gas Structures		Yes			No	No	
9. Fleeting and Anchorage Areas		Yes			No	No	
10. Mooring Bouys		Yes			No	No	
11. Temp. Recreational Structures		Yes	Ask RM	Ask RM	No	Yes	See note 3.
12. Utility Line Backfill & Bedding	Yes	Yes	2	Form 2	No	Yes	See 2 and 4.
13. Bank Stabilization	Yes	Yes	2	Form 2	No	Yes	See 2 and 5.
14. Road Crossing	Yes	Yes	2	Form 2	Yes	Yes	See 2, 6, and 14.
15. Coast Guard Approved Bridges	Yes	Yes			No	No	
16. Disposal Areas Return Water	No	Yes	3	Form 1	No	Yes	See note 13.
17. Hydropower Projects	No	Yes	1	Form 1	No	Yes	
18. Minor Discharges	Yes	No	1	See note 11	Yes	Yes	See 1, 6, 11, 13, 14, and 15.
19. 25 Cubic Yards Dredging		No	3	See note 12	No	Yes	See 12, 13, and 15.
20. Oil Spill Cleanup	Yes	Yes			No	No	
21. Surface Mining Activities	Yes	Yes	2	Form 2	Yes	Yes	See note 14.
22. Removal of Vessels	Yes	Yes	2	Form 2	No	Yes	See note 7.
23. Categorical Exclusions	Yes	No	1	See note 8	No	Yes	See 8 and 15.
24. State Admin. 404 Program		Yes			No	No	See note 2.
25. Structural Discharge	Yes	Yes			No	No	
26. Headwaters & Isolated Waters	No	No	1	Form 1	Yes	Yes	See 9, 10, 13, 14, and 15.
27. Wetland Restoration Activities	Yes	No	3	See note 12	No	Yes	See 12, 13, and 15.
28. Mod. of Existing Marinas		No	3	See note 12	No	Yes	See 12, 13, and 15.
32. Completed Enforcement Action	Yes	No	3	See note 12	No	Yes	See 12, 13, and 15.
33. Temp. Construction/Access	Yes	No	1	See note 11	No	Yes	See 11, 13, and 15.
34. Cranberry Production	Yes	Yes	2	Form 2	No	Yes	
35. Maintenance Dredging		No	3	See note 12	No	Yes	See 12, 13, and 15.
36. Boat Ramps	Yes	Yes			No	No	See note 2.
37. Emergency Watershed Protect	Yes	Yes	2	Form 2	No	Yes	
38. Cleanup of Hazardous/Toxic	Yes	Yes	2	Form 2	Yes	Yes	See 2 and 14.
40. Farm Buildings	Yes	No	3	See note 12	No	Yes	See 12, 13, and 15.

Nationwide Permit Numbers 29, 30, 31, and 39 were not used.

Not Applicable

Applicable Notes:

1. Notification is required if the project exceeds 10 cubic yards.
2. Certification was issued based on regional conditions.
3. Notification is required at Corps of Engineers Reservoirs. Notify the Reservoir Manager (RM).
4. Notification is required only if sidecast material will remain in U. S. Waters (including wetlands) for more than 90 days.
5. Notification is required if the project exceeds 500 feet in length or one cubic yard per running foot.
6. Notification is required if the project is in a wetland or other special aquatic site.
7. Notification is required if the vessel is listed or eligible for listing on the National Register of Historic Places.
8. Form 1 is required in non-critical areas of the coastal zone, elsewhere notice must satisfy RGL 87-10.
9. Notification is required for discharges in non-critical areas of the coastal zone and those exceeding one acre outside coastal zone.
10. Certification was waived for all qualified discharges of less than one acre outside of the coastal zone.
11. Form 1 is required for activities in the non-critical areas of the coastal zone, elsewhere use Form 2.
12. Notification is only required for activities in the non-critical areas of the coastal zone (use Form 1).
13. Notification is required only because DHEC or SCCC denied certification for the Nationwide Permit.
14. Delineation is required if the project is in a wetland or other special aquatic site.
15. Public Notice is not required if the activity is limited to the Critical Areas of the Coastal Zone (SCCC certified all NWPs in the Critical Areas).

Nationwide Permit Conditions
(source 33 CFR Part 330, Appendix A)

GENERAL CONDITIONS: The following general conditions must be followed in order for any authorization by a nationwide permit to be valid:

1. Navigation. No activity may cause more than a minimal adverse effect on navigation.

2. Proper maintenance. Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.

3. Erosion and siltation controls. Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills must be permanently stabilized at the earliest practicable date.

4. Aquatic life movements. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water.

5. Equipment. Heavy equipment working in wetlands must be placed on mats or other measures must be taken to minimize soil disturbance.

6. Regional and case-by-case conditions. The activity must comply with any regional conditions which may have been added by the division engineer (see 33 CFR 330.4(e)) and any case specific conditions added by the Corps.

7. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status. Information on Wild and Scenic Rivers may be obtained from the National Park Service and the U.S. Forest Service.

8. Tribal rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Water quality certification. In certain states, an individual state water quality certification must be obtained or waived (see 33 CFR 330.4(c)).

10. Coastal zone management. In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived. (see 33 CFR 330.4(d)).

11. Endangered Species. No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the district engineer if any listed species or critical habitat might be affected or is in the vicinity of the project and shall not begin work on the activity until notified by the district engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized. Information on the location of threatened and endangered species and their critical habitat can be obtained from the U.S. Fish and Wildlife Service and National Marine Fisheries Service. (see 33 CFR 330.4(f))

12. Historic properties. No activity which may affect Historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR 325, Appendix C. The prospective permittee must notify the district engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may

be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)).

13. Notification.

(a) Where required by the terms of the NWP, the prospective permittee must notify the District Engineer as early as possible and shall not begin the activity:

(1) Until notified by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) If notified by the District or Division engineer that an individual permit is required; or

(3) Unless 30 days have passed from the District Engineer's receipt of the notification and the prospective permittee has not received notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) The notification must be in writing and include the following information and any required fees:

(1) Name, address and telephone number of the prospective permittee;

(2) Location of the proposed project;

(3) Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s) or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity;

(4) Where required by the terms of the NWP, a delineation of affected special aquatic sites, including wetlands; and

(5) A statement that the prospective permittee has contacted:

(i) The USFWS/NMFS regarding the presence of any Federally listed (or proposed for listing) endangered or threatened species or critical habitat in the permit area that may be affected by the proposed project; and any available information provided by those agencies. (The prospective permittee may contact Corps District Offices for USFWS/NMFS agency contacts and lists of critical habitat.)

(ii) The SHPO regarding the presence of any historic properties in the permit area that may be affected by the proposed project; and the available information, if any, provided by that agency.

(c) The standard individual permit application form (Form ENG 4345) may by used as the notification but must clearly indicate that it is a PDN and must include all of the information required in (b)(1)-(5) of General Condition 13.

(d) In reviewing an activity under the notification procedure, the District Engineer will first determine whether the activity will result in more than minimal individual or cumulative adverse environmental effects or will be contrary to the public interest. The prospective permittee may, at his option, submit a proposed mitigation plan with the predischarge notification to expedite the process and the District Engineer will consider any optional mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed work are minimal. The District Engineer will consider any comments from Federal and State

agencies concerning the proposed activity's compliance with the terms and conditions of the nationwide permits and the need for mitigation to reduce the project's adverse environmental effects to a minimal level. The district engineer will upon receipt of a notification provide immediately (e.g. facsimile transmission, overnight mail or other expeditious manner) a copy to the appropriate offices of the Fish and Wildlife Service, State natural resource or water quality agency, EPA, and, if appropriate, the National Marine Fisheries Service. With the exception of NWP 37, these agencies will then have 5 calendar days from the date the material is transmitted to telephone the District Engineer if they intend to provide substantive, site-specific comments. If so contacted by an agency, the District Engineer will wait an additional 10 calendar days before making a decision on the notification. The District Engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency. The District Engineer will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered. Applicants are encouraged to provide the Corps multiple copies of notifications to expedite agency notification. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects are minimal, he will notify the permittee and include any conditions he deems necessary. If the District Engineer determines that the adverse effects of the proposed work are more than minimal, then he will notify the applicant either:

(1) that the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; or

(2) that the project is authorized under the nationwide permit subject to the applicant's submitting a mitigation proposal that would reduce the adverse effects to the minimal level. This mitigation proposal must be approved by the District Engineer prior to commencing work. If the prospective permittee elects to submit a mitigation plan, the DE will expeditiously review the proposed mitigation plan, but will not commence a second 30-day notification procedure. If the net adverse effects of the project (with the mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant informing him that the project can proceed under the terms and conditions of the nationwide permit.

(e) Wetlands Delineations: Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 30-day period will not start until the wetland delineation has been completed.

(f) Mitigation: Factors that the District Engineer will consider when determining the acceptability of appropriate and practicable mitigation include, but are not limited to:

(1) To be practicable the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of overall project purposes;

(2) To the extent appropriate, permittees should consider mitigation banking and other forms of mitigation including contributions to wetland trust funds, which contribute to the restoration, creation, replacement, enhancement, or preservation of wetlands.

Furthermore, examples of mitigation that may be appropriate and practicable include but are not limited to: reducing the size of the project; establishing buffer zones to protect aquatic resource values; and replacing the loss of aquatic resource values by creating, restoring, and enhancing similar functions and values. In addition, mitigation must address impacts and cannot be used to offset the acreage of wetland losses that would occur in order to meet the acreage limits of some of the nationwide permits (e.g. 5 acres of wetlands cannot be created to change a 6 acre loss of wetlands to a 1 acre loss; however, the 5 created acres can be used to reduce the impacts of the 6 acre loss).

SECTION 404 ONLY CONDITIONS: In addition to the General Conditions, the following conditions apply only to activities that involve the discharge of dredged or fill material and must be followed in order for authorization by the nationwide permits to be valid:

1. Water supply intakes. No discharge of dredged or fill material may occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization.

2. Shellfish production. No discharge of dredged or fill material may occur in areas of concentrated shellfish production, unless the discharge is directly related to a shellfish harvesting activity authorized by nationwide permit 4.

3. Suitable material. No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, etc.) and material discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

4. Mitigation. Discharges of dredged or fill material into waters of the United States must be minimized or avoided to the maximum extent practicable at the project site (i.e. on-site), unless the DE has approved a compensation mitigation plan for the specific regulated activity.

5. Spawning areas. Discharges in spawning areas during spawning seasons must be avoided to the maximum extent practicable.

6. Obstruction of high flows. To the maximum extent practicable, discharges must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

7. Adverse impacts from impoundments. If the discharge creates an impoundment of water, adverse impacts on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.

8. Waterfowl breeding areas. Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

9. Removal of temporary fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

Regional Conditions for Specific Nationwide Permits in South Carolina

Nationwide Permit #12 – That the nationwide permit authorizes only a single crossing of a waterbody and/or wetland and such crossing cannot run parallel with the wetland system. The permittee must take appropriate erosion control measures to prevent siltation of the adjacent wetlands.

Nationwide Permit #13 – That the permittee must provide the District Engineer, Charleston District with *notification* in accordance with 33 CFR 330.1(e), before commencing work on any bank stabilization activity in South Carolina that would be located adjacent to an authorized Federal Navigation project. These Federal navigation areas include Adams Creek, Savannah River, Jeremy and Town Creek at McClellanville, Village Creek at Beaufort, the Charleston Harbor Navigation Project (to include the federal navigation channels in Shipyard River, Wando River, Town Creek, and channels at the Naval Weapons Station), Georgetown Harbor, Little River Inlet, Murrells Inlet, Main Creek at Murrells Inlet, Port Royal Harbor, Waccamaw River, and the Atlantic Intracoastal Waterway (AIWW).

Nationwide Permit #14 – That the use of this permit is prohibited in waters that the S. C. Department of Health and Environmental Control has classified as Outstanding Resource Waters (ORW). Additionally, the use of this permit is limited to one crossing per project provided no other permits (nationwide or otherwise) are required to develop the project site, unless waived by the S. C. Coastal Council. The permittee must take appropriate erosion control measures to prevent siltation of the adjacent wetlands.

Nationwide Permit #24 – That the state administered 404 program must be consistent with the Coastal Zone Management Program.

Nationwide Permit #36 – That, in addition to the restrictions currently imposed by the nationwide permit, the following restrictions are added:

a. That the boat ramp width cannot exceed 10 feet.
b. That only one boat ramp is constructed on a single family residential lot.
c. That its use is limited to private, non-commercial activities.

Nationwide Permit #38 – That once the activity authorized by this nationwide permit is complete, any special aquatic sites, including wetlands, that were impacted by the activity must be restored to preproject conditions or a mitigation proposal must be submitted that adequately compensates the impacts to the wetlands. A restoration or mitigation plan and time table must be submitted to the District Engineer. The District Engineer or his designee will conduct a site inspection after the restoration/mitigation has been completed to insure compliance.

Procedures for Processing and Evaluation of Certain Nationwide Permits in South Carolina

PROCEDURE I. On those nationwide permits for which the SCCC and/or the SCDHEC have denied certification, the procedure to be employed in the Charleston District is as follows: Upon receipt of notification (Form #1) from a perspective permittee on a nationwide permit that required notification that has been denied by the SCCC and/or SCDHEC (NWP's 17, 18, 23, 26, & 33), the Charleston District will issue a public notice (PN) describing the proposed project (*see sample PN's on pages 4 and 5*). The notice will serve as a request from the applicant for a project specific determination on the activities consistency with the coastal zone management program and/or compliance with applicable state water quality standards. The notice will also provide interested or affected parties an opportunity to provide comments to the SCCC and/or the SCDHEC.

In addition, the notice will also serve as a request for comments from the Federal and State environmental resource agencies on the specific impacts the proposed activity may have on the environment. The notice will specifically request comments from the U. S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) on the presence of any Federally listed (or proposed for listing) endangered or threatened species or critical habitat in the permit area that may be affected by the proposed project. The notice will also specifically request comments from the S.C. State Historic Preservation Office (SHPO) regarding the presence of any historic properties in the permit area that may be affected by the proposed project. All comments received from these agencies within 15 days of the date of this notice will be fully considered in the District Engineer's decision as to whether this activity should be authorized by nationwide permit or subjected to a more rigorous review under the provisions of the individual permit application process (33 CFR 325). However, this decision must be made within 30 days of the date that a complete notification was received by the corps, unless mitigation is determined to be necessary or historic property or endangered species consultation is required. If an individual permit application is determined to be the appropriate measure in this case, a new public notice will be issued. Absent such a determination the applicant and the public may presume this activity is being considered under the provisions of the Corps' nationwide permit program.

Procedure I - Special Cases

a. Nationwide Permit 18. Notification under NWP 18 is required only if:

(1) the discharge exceeds 10 cubic yards or;
(2) the project is in a wetland or other special aquatic site or;
(3) the project is in the non-critical areas of the coastal zone.

b. Nationwide Permits 18 and 33. Notification procedures for NWPs 18 and 33 are as stated above with the following exceptions. For activities in all areas of South Carolina except the non-critical area of the coastal zone, the notification should use Form 2 and the Project Manager should follow Procedure II instead of procedure I.

c. Nationwide Permit 23. Notification procedures for NWP 23 are as stated above with the following exceptions.

(1) For activities outside the non-critical areas of the coastal zone a public notice is not required.
(2) In addition, certain NWP 23 activities which fall under the Federal Highway Administration (FHWA) categorical exclusions require notification. As stated in RGL 87-10, those FHWA activities which require notification are the activities occurring under paragraphs (c)(3), (c)(7), (c)(9), (c)(12) and all (d) paragraphs of 49 CFR Part 771.117 (published 27 Nov 1987). An extracted listing of these paragraphs is provided as *Attachment E*. The FHWA or local transportation agency to be funded by the FHWA should contact the Corps to review the project proposal to ensure that the proposed activities would have only minimal adverse individual and cumulative impacts on the aquatic environment.

PROCEDURE II. For those nationwide permits requiring notification (NWP's 5, 7, 12, 13, 14, 21, 22, 34, 37 & 38) that the SCCC and/or the SCDHEC have certified, the procedure to be employed in the Charleston District is as follows: Upon receipt of notification (Form #2)[1] from a perspective permittee, the District Engineer will review the

[1] Form #2 is provided as a recommended format for submittal of the necessary information.

proposed activity and determine if the activity is a candidate for authorization by nationwide permit and if mitigation for the project's impacts will be required. Along with the notification, the perspective permittee must furnish evidence that he/she has contacted the FWS/NMFS regarding the presence of any Federally listed (or proposed for listing) endangered or threatened species or critical habitat in the permit area that may be affected by the proposed project and any available information provided by those agencies. The perspective permittee must also furnish evidence that he/she has contacted the State Historic Preservation Office regarding the presence of any historic properties in the permit area that may be affected by the proposed project and the available information, if any, provided by that agency. The District Engineer will also request comments from the Federal and State environmental resource agencies on the specific impacts the proposed activity may have on the environment (*see sample letter on page 6*). All comments received from these agencies within 15 days of the date of such request will be fully considered in the District Engineer's decision as to whether this activity should be authorized by nationwide permit or subjected to a more rigorous review under the provisions of the individual permit application process (33 CFR 325). This decision must be made within 30 days of the date of receipt of notification if all information required has been submitted by the perspective permittee. If an individual permit application is determined to be the appropriate measure, the perspective permittee will be so advised. Absent such a determination the perspective permittee may presume this activity is being considered under the provisions of the Corps' nationwide permit program.

Procedure II - Special Cases

a. Nationwide Permit 5. Notification under NWP 5 is required only if the discharge exceeds 10 cubic yards.

b. Nationwide Permit 12. Notification under NWP 12 is required only if sidecast material will remain in U.S. Waters (which includes wetlands) for more than 90 days.

c. Nationwide Permit 13. Notification under NWP 13 is required only if the project exceeds 500 feet in length or one cubic yard per running foot.

d. Nationwide Permit 14. Notification under NWP 14 is required only if the project is in a wetland or other special aquatic site.

e. Nationwide Permit 22. Notification under NWP 22 is required only if the vessel to be removed is listed or eligible for listing on the National Register of Historic Places.

PROCEDURE III. For those nationwide permits that the SCCC and/or the SCDHEC have denied certification which do not require notification to the District Engineer (NWP's 16, 19, 27, 28, 32, 35, & 40), the procedure to be employed in the Charleston District is as follows: The actions taken by the SCCC and/or the SCDHEC to deny certain nationwide permits (see above list) have resulted in a denial of Federal authorization without prejudice for those specific activities. Perspective permittees can not commence work under the authority of these nationwide permits until he receives certification from the appropriate state agency. To assist in this regard, this office will, upon receipt of a request for verification from a perspective permittee, review the proposed activity and determine if the specific activity is a candidate for authorization by a particular nationwide permit. If it meets the requisite criteria, a public notice will be issued (*see sample PN's on pages 7 and 8*) by the Charleston District announcing that it has received a request for verification and that it has reviewed the activity and determined that the work is a valid candidate for authorization by nationwide permit. The authorization will be subject to compliance with any modification or mitigation that is required as a prerequisite to certification by the SCCC and/or the SCDHEC. The notice will also indicate that the permittee can not commence work until the required state certification is received from the appropriate agency.

Procedure III - Special Cases

Nationwide Permits 19, 27, 28, 32, 35, and 40. Notification for these NWPs is only required for projects in the non-critical areas of the coastal zone. For activities located outside of the non-critical areas of the coastal zone (which includes all counties outside of the coastal zone) no notification is required.

CHARLESTON DISTRICT
P.O. Box 919
Charleston, S.C. 29402
404 APPLICATION: LESS THAN 10 ACRES

The below listed information is required and must be attached to this form:

1. Applicant's Name: _____

   Applicant's Address: _____ Phone: _____

2. Agent's Name: _____

   Agent's Address: _____

3. Contact Person: _____ Phone: _____

4. Project Name (if any): _____

5. Nearest Waterway Name (if any): _____

6. Nearest Town/City: _____ County: _____

7. Total wetland area proposed for fill (acreage/square feet): _____
   (Include wetland delineation map/drawing)

8. Total amount of fill in wetlands (Cubic Yards): _____

9. Total area of wetlands (acres) affected by project: _____
   (i.e., flooded, cleared, drained, excavated, etc.)

10. A wetland delineation of the project site must be provided. If a wetland delineation has been accomplished, please provide the identification number cited (SAC-_____) and/or a copy of the letter.

11. If any other permits have been issued for this project or site please provide a list of all previous project names and permit numbers (SAC-_____).

12. Has any part of the work been started or completed? ( )Yes ( )No
    If yes, explain: _____

THE BELOW LISTED SUPPORTING INFORMATION, REQUIRED BY S.C.C.C. (Required by 15 CFR 930.58), AND SCDHEC MUST BE ATTACHED TO THIS FORM:

(1) A brief narrative description of the project, project location and the purpose of the project.

(2) A location map identifying the precise location of the work site must be provided on an 8 1/2" x 11" or 8 1/2" x 14" portion of a USGS Quadrangle map. The name of the Quadrangle must be shown on the map. A county or local road map showing the project site must also be provided.

(3) Plan of project on 8 1/2" x 11" or 8 1/2" x 14" paper, clearly depicting all wetlands, the areas proposed to be filled or modified, the mitigation areas, the property and/or lot boundaries, roadways, structure locations, location of high water (HW) and low water (LW) contours, and other relevant information.

(4) Cross Sections through each wetland to be filled and/or altered showing both existing and proposed contours.

(5) For other than single family lots a drainage and storm water management plan must be submitted directly to the SCCC and/or SCDHEC. Contact the SCCC or SCDHEC, as appropriate, for drainage and storm water guidelines.

(6) Proof of publication in a local newspaper. Contact the SCCC or the SCDHEC for additional information.

(7) For projects involving commercial and/or residential development an overall development plan must be provided. This plan must also be on 8 1/2" x 11" or 8 1/2" x 14" paper and must identify all wetlands to be filled and/or altered. The information contained on the drawings must be readable.

(8) The projects latitude and longitude must be shown on the project plans.

(9) If large scale development plans are available they must be provided to the agencies identified on the reverse side of this form.

_____ DATE

_____ SIGNATURE OF APPLICANT OR AUTHORIZED AGENT

(Revised 6/01/92)

CHARLESTON DISTRICT
P.O. Box 919
Charleston, S.C. 29402

NATIONWIDE PERMIT "NOTIFICATION" FORM

The below listed information is required and must be attached to this form:

1. Applicant's Name: _____

   Applicant's Address: _____ Phone: _____

2. Agent's Name: _____

   Agent's Address: _____

3. Project Name (if any): _____

4. Nearest Waterway Name (if any): _____

5. Nearest Town/City: _____ County: _____

6. Total wetland area proposed for fill (acreage/square feet): _____

7. Total area of wetlands (acres) affected by project: _____
   (i.e., flooded, cleared, drained, excavated, etc.)

8. A wetland delineation of the project site must be provided. If a wetland delineation has been accomplished, please provide the identification number cited (SAC-_____) and/or a copy of the letter.

9. List any other NWP(s), regional general permit(s) or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. (SAC_____).

10. Has any part of the work been started or completed? ( )Yes ( )No
    If yes, explain: _____

11. A brief narrative description of the project, project location and the purpose of the project must be provided. Include a discussion of the direct and indirect impacts associated with the project.

12. Evidence is required that shows that the prospective permittee has contacted:

    (a) The USFWS/NMFS regarding the presence of any Federally listed (or proposed for listing) endangered or threatened species or critical habitat in the permit area that may be affected by the proposed project; and any available information provided by those agencies. (The prospective permittee may contact Corps District Offices for USFWS/NMFS agency contacts and lists of critical habitat.)

    (b) The SHPO regarding the presence of any historic properties in the permit area that may be affected by the proposed project; and the available information, if any, provided by that agency.

13. A location map identifying the precise location of the work site must be provided on a 8 1/2" x 11" or 8 1/2" x 14" portion of a USGS Quadrangle map. The name of the Quadrangle must be shown on the map. A county or local road map showing the project site must also be provided.

14. A plan of project on 8 1/2" x 11" or 8 1/2" x 14" paper, clearly depicting all wetlands, the areas proposed to be filled or modified, the mitigation areas, the property and/or lot boundaries, roadways, structure locations, location of high water (HW) and low water (LW) contours, and other relevant information must be provided.

15. Cross Sections through each wetland to be filled and/or altered showing both existing and proposed contours must be provided.

16. For projects involving commercial and/or residential development an overall development plan must be provided. This plan must also be on 8 1/2" x 11" or 8 1/2" x 14" paper and must identify all wetlands to be filled and/or altered. The information contained on the drawings must be readable.

_____ DATE

_____ SIGNATURE OF APPLICANT OR AUTHORIZED AGENT

(Procedure I - Sample public notice for nationwide permit activities in the Non-Critical Areas of the Coastal Zone)

PUBLIC NOTICE

CESAC-CO-P _____

Refer to SAC-__-92-___-____

An application, dated _____, has been submitted by

John Doe Limited Partnership
123 Your Street
Anytown, Picka County, SC

requesting verification that the proposed activity depicted on the attached plans is authorized by nationwide permit.

This office has reviewed the proposed activity and has concluded that the activity is a candidate for authorization by nationwide permit if an acceptable mitigation proposal, as explained hereafter, is submitted to and approved by the District Engineer and an activity specific consistency concurrence is obtained from the S. C. Coastal Council. The applicant has provided a statement that indicates to the best of his knowledge the proposed work is consistent with the Coastal Zone Management Program and the S. C. Coastal Council has been requested to advise the District Engineer if it concurs. The concurrence of the S. C. Coastal Council is required before the activities identified herein may be authorized to proceed by the Corps of Engineers.

With regard to the necessity of the applicant submitting an acceptable mitigation plan, it should be noted that the mitigative measures routinely required by the S. C. Coastal Council to compensate for the environmental impacts of a proposal are normally sufficient to allow the District Engineer to conclude that the loss of wetlands associated with the specific activity has been adequately mitigated. For this reason, an activity specific mitigation plan must be submitted to the District Engineer along with the coastal zone consistency concurrence.

Anyone interested in or affected by the proposed project, or anyone wishing to comment on the project's consistency with the Coastal Zone Management Program may submit comments on the proposed work to the S. C. Coastal Council at the address specified below.

South Carolina Coastal Council
Attn: Mr. H. Stephen Snyder
Ashley Corporate Center
4130 Faber Place, Suite 300
Charleston, South Carolina 29405

The S. C. Coastal Council will accept comments for a period of thirty (30) days, commencing with the date of this public notice. Information concerning the proposed work is available for public inspection at the S. C. Coastal Council's Charleston office at the above address during normal business hours.

NOTE: The S.C. Department of Health and Environmental Control has waived water quality certification for activities that qualify for nationwide permit #26 which are located in the coastal zone.

This public notice also serves as a request for comments from the Federal and State environmental resource agencies on the specific impacts the proposed activity may have on the environment. Project specific comments are also requested from the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service regarding the presence of any Federally listed (or proposed for listing) endangered or threatened species or critical habitat in the permit area that may be affected by the proposed project. Project specific comments are also requested from the State Historic Preservation Office regarding the presence of any historic properties in the permit area that may be affected by the proposed project. All comments received from these agencies within 15 days of the date of this notice will be fully considered in the District Engineer's decision as to whether this activity should be authorized by nationwide permit or subjected to a more rigorous review under the provisions of the individual permit application process (33 CFR 325). This decision must be made by *__insert date__* unless historic property or endangered species consultation is required. If an individual permit application is determined to be the appropriate measure in this case, a new public notice will be issued. Absent such a determination the applicant and the public may presume this activity is being considered under the provisions of the Corps' nationwide permit program.

_____
Project Manager, Charleston District

(Procedure I - Sample public notice for nationwide permit activities inland of the Coastal Zone)
PUBLIC NOTICE

CESAC-CO-P _____
Refer to SAC-__-92-___-____

An application, dated _____, has been submitted by

John Doe Limited Partnership
123 Your Street
Anytown, Picka County, SC

requesting verification that the proposed activity depicted on the attached plans is authorized by nationwide permit.

This office has reviewed the proposed activity and has concluded that the activity is a candidate for authorization by nationwide permit if an acceptable mitigation proposal, as explained hereafter, is submitted to and approved by the District Engineer and an activity specific water quality certification is obtained from the S. C. Department of Health and Environmental Control (SCDHEC). The SCDHEC is hereby requested to review the proposal and provide the District Engineer with its decision on water quality certification. Water Quality Certification from the SCDHEC is required before the activities identified herein may be authorized to proceed by the Corps of Engineers.

With regard to the necessity of the applicant submitting an acceptable mitigation plan, it should be noted that the mitigative measures routinely required by the SCDHEC to compensate for the environmental impacts of a proposal are normally sufficient to allow the District Engineer to conclude that the loss of wetlands associated with the specific activity has been adequately mitigated. For this reason, an activity specific mitigation plan must be submitted to the District Engineer along with the water quality certification.

Anyone interested in or affected by the proposed project, or anyone wishing to comment on the project's water quality impacts may submit comments on the proposed work to the S. C. Department of Health and Environmental Control at the address specified below.

S. C. Department of Health
and Environmental Control
Attn: Sally Knowles
2600 Bull Street
Columbia, South Carolina 29201

The SCDHEC will accept comments for a period of fifteen (15) days, commencing with the date of this public notice. Information concerning the proposed work is available for public inspection at the SCDHEC's office at the above address during normal business hours.

This public notice also serves as a request for comments from the Federal and State environmental resource agencies on the specific impacts the proposed activity may have on the environment. Project specific comments are also requested from the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service regarding the presence of any Federally listed (or proposed for listing) endangered or threatened species or critical habitat in the permit area that may be affected by the proposed project. Project specific comments are also requested from the State Historic Preservation Office regarding the presence of any historic properties in the permit area that may be affected by the proposed project. All comments received from these agencies within 15 days of the date of this notice will be fully considered in the District Engineer's decision as to whether this activity should be authorized by nationwide permit or subjected to a more rigorous review under the provisions of the individual permit application process (33 CFR 325). This decision must be made by *__insert date__* unless historic property or endangered species consultation is required. If an individual permit application is determined to be the appropriate measure in this case, a new public notice will be issued. Absent such a determination the applicant and the public may presume this activity is being considered under the provisions of the Corps' nationwide permit program.

_____
Project Manager
Charleston District

(Procedure II - Sample letter for notification to resource agencies)

Date

To: *Send This Letter To FWS, EPA, NMFS, SCWMRD*

Subject: NATIONWIDE PERMIT - AGENCY NOTIFICATION

In accordance with current regulations published at 33 CFR 330 which became effective on January 21, 1992, the attached notification regarding a proposed activity under nationwide permit #____ is forwarded for your review and comment. If you believe the proposed work should not be authorized under the nationwide permit, you should forward your views to the District Engineer.

To ensure full consideration of your views, your response must be received by _____. In your response, please refer to our file number _____.

Respectfully,

Enclosures *enclose copy of complete notification including drawings*

(Procedure III - Sample PN for activities that require notification because certification has been denied by SCCC)

PUBLIC NOTICE

CESAC-CO-P _____
Refer to SAC-__-92-___-____

An application, dated _____, has been submitted by

John Doe Limited Partnership
123 Your Street
Anytown, Picka County, SC

requesting verification that the proposed activity depicted on the attached plans is authorized by nationwide permit.

This office has reviewed the proposed activity and has concluded that the activity complies with the terms and conditions of the nationwide permit and can be authorized once an activity specific certification is obtained from the S. C. Coastal Council (SCCC). The authority to proceed under nationwide permit is subject to compliance with any modification or mitigation that is required as a prerequisite to certification by the SCCC.

Anyone interested in or affected by the proposed project, or anyone wishing to comment on the project's consistency with the Coastal Zone Management Program may submit comments on the proposed work to the S. C. Coastal Council at the address specified below.

South Carolina Coastal Council
Attn: Mr. H. Stephen Snyder
Ashley Corporate Center
4130 Faber Place, Suite 300
Charleston, South Carolina 29405

The S. C. Coastal Council will accept comments for a period of thirty (30) days, commencing with the date of this public notice. Information concerning the proposed work is available for public inspection at the S. C. Coastal Council's office at the above address during normal business hours.

NOTE: The S.C. Department of Health and Environmental Control has waived water quality certification for activities that qualify for nationwide permit #26 which are located in the coastal zone.

Once certification is received from the SCCC the permittee may proceed with the work as far as the Corps of Engineers is concerned.

_____
Project Manager
Charleston District

(Procedure III - Sample PN for activities that require notification because SCDHEC denied certification)

PUBLIC NOTICE

CESAC-CO-P _____
Refer to SAC-__-92-___-____

An application, dated _____, has been submitted by

John Doe Limited Partnership
123 Your Street
Anytown, Picka County, SC

requesting verification that the proposed activity depicted on the attached plans is authorized by nationwide permit.

This office has reviewed the proposed activity and has concluded that the activity complies with the terms and conditions of the nationwide permit and can be authorized once an activity specific certification is obtained from the S. C. Department of Health and Environmental Control (SCDHEC). The authority to proceed under nationwide permit is subject to compliance with any modification or mitigation that is required as a prerequisite to certification by the SCDHEC.

Anyone interested in or affected by the proposed project, or anyone wishing to comment on the project's water quality impacts may submit comments on the proposed work to the S. C. Department of Health and Environmental Control at the address specified below.

S. C. Carolina Department of Health
and Environmental Control
Attn: Ms. Sally Knowles
2600 Bull Street
Columbia, South Carolina 29201

The S. C. Department of Health and Environmental Control will accept comments for a period of fifteen (15) days, commencing with the date of this public notice. Information concerning the proposed work is available for public inspection at the S. C. Department of Health and Environmental Control's office at the above address during normal business hours.

Once certification is received from the SCDHEC the permittee may proceed with the work as far as the Corps of Engineers is concerned.

_____
Project Manager
Charleston District

Federal Highway Administration Categorical Exclusions Requiring Notification

The following list is extracted from 49 CFR 771.117. The listed activities are those specified in Regulatory Guidance Letter 87-10 as requiring notification and verification by the District Engineer on a case by case basis. Furthermore, 49 CFR 771.117(d) allows that additional categorical exclusions may be designated after approval by the Administration. Any such additional exclusions must be approved by the Office of the Chief of Engineers and will require notification.

Reference Paragraph	Activity Description
49 CFR 771.117 c(3)	Construction of bicycle and pedestrian lanes, paths, and facilities.
49 CFR 771.117 c(7)	Landscaping.
49 CFR 771.117 c(9)	Emergency repairs under 23 U.S.C. 125.
49 CFR 771.117 c(12)	Improvements to existing rest areas and truck weigh stations.
49 CFR 771.117 d(1)	Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
49 CFR 771.117 d(2)	Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
49 CFR 771.117 d(3)	Bridge rehabilitation, reconstruction or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
49 CFR 771.117 d(4)	Transportation corridor fringe parking facilities.
49 CFR 771.117 d(5)	Construction of new truck weigh stations or rest areas.
49 CFR 771.117 d(6)	Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
49 CFR 771.117 d(7)	Approvals for changes in access control.
49 CFR 771.117 d(8)	Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not consistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
49 CFR 771.117 d(9)	Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amount additional land are required and there is not a substantial increase in the number of users.
49 CFR 771.117 d(10)	Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
49 CFR 771.117 d(11)	Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
49 CFR 771.117 d(12)	Acquisition of land for hardship or protective purposes; advance land acquisition loans under 3(b) of the UMT Act. (see 49 CFR 771.117 for additional information on this exclusion)

APPENDIX C

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
P. O BOX 919
CHARLESTON, SC 29402-0919

RB-SOP-93-02
Regulatory Branch - Standard Operating Procedure 5 January 1993

Compensatory Mitigation Plans for Nationwide Permits and Small Projects

Table of Contents

1. Applicability.
2. Purpose.
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1. Applicability. This SOP is intended to be applied only to compensatory mitigation requirements for adverse ecological effects under Nationwide Permits and other small projects where more rigorous, detailed studies (e.g., WET, HEP) are not considered practical or necessary. For the purposes of this SOP, small projects will be considered those with total adverse affects greater than one acre and less than ten acres. This SOP does not address mitigation for categories of effects other than ecological (e.g., historic, cultural, aesthetic). Also, types of mitigation other than compensation (e.g., avoidance, minimization, reduction) are not addressed by this SOP. The guidance and procedures given herein are applicable to all such Department of the Army regulatory actions requiring mitigation plans in the State of South Carolina.

2. Purpose. The intent of this SOP is to provide a basic written framework which will provide predictability and consistency for the development, review, and approval of compensatory mitigation plans. A key element of this SOP is the establishment of a methodology for calculating mitigation credits. While this methodology is not intended for use as project design criteria, appropriate application of the methodology should minimize uncertainty in the development and approval of mitigation plans and allow expeditious review of applications. However, nothing in this SOP should be interpreted as a promise or guarantee that a project which satisfies the criteria or guidelines given herein will be assured of a permit. The District Engineer (DE) has a responsibility to consider each project on a case by case basis and may determine in any specific situation that authorization should be denied, modified, suspended, or revoked. This SOP does not obviate or modify any requirements given in the 404(b)(1) Guidelines or other applicable documents regarding avoidance, sequencing, minimization, etc. Such requirements shall be evaluated during consideration of permit applications.

3. Other Guidance. In addition to the policies and requirements set forth in this SOP for Department of the Army permits, there may be other guidance provided by State or Federal resource or permitting

agencies. For projects impacting less than one acre of wetlands in the Coastal Zone, the CoE will routinely defer exclusively to any compensatory mitigation requirements approved by the South Carolina Coastal Council (SCCC). Projects impacting more than one acre of wetlands will usually have to satisfy the requirements of this SOP in addition to any requirements imposed by SCCC. The policies and regulations regarding mitigation are still evolving and it is possible that conflicting guidance may occasionally be provided. Every effort has been made in the preparation of this SOP to minimize or eliminate such discrepancies. If a significant conflict is discovered between this SOP and any other relevant guidance regarding mitigation, the applicant should notify Charleston District's Regulatory Branch of the conflict and request clarification before incorporating any such guidance into a proposed plan.

4. Mitigation Equation. When a mitigation plan is required, it will be evaluated by the following formula. This formula is not intended to represent an exact or proven scientific methodology. Rather, it is based on the judgment of regulatory staff and resource agencies. It is intended to establish a clear, understandable, and consistent methodology for use by applicants and regulators. The definitions and explanations for all values and factors used in these equations are provided as *Attachments A and B*. As additional experience with this procedure is gained, it is possible that the tables of factors will be reviewed and adjusted. When using this equation always use the most recent approved edition of these tables. Case specific worksheets are provided as *Attachment C* and example cases demonstrating the application of the mitigation formula are provided as *Attachment D*. Since there are a large number of possible variations in proposed mitigation projects, it is not practicable to provide all possible worksheet combinations. However, the attached worksheets should suffice for the majority of mitigation proposals.

For those who desire a deeper understanding of the procedure, the following discussion and details are provided. Simply stated, the mitigation equation requires that for a mitigation proposal to be acceptable, the Proposed Mitigation Credits (PMC) must be equal to or greater than the Required Mitigation Credits (RMC). Further, the portion of the PMC resulting from Restoration, Creation, and/or Enhancement must be at least 50% of the RMC. The mitigation credits for RMC and PMC are calculated using the values and the factors given in the attachments.

$$PMC \geq RMC$$

and,

$$PMC_{\text{Non-Preservation}} \geq \frac{1}{2} RMC$$

where,

PMC = Proposed Mitigation Credits
RMC = Required Mitigation Credits

$$RMC = \sum_{i=1}^{N} (R_i \times AA_i) \qquad R_i = \sum_{i=1}^{k} r_i$$

$$PMC = \sum_{i=1}^{n} (M_i \times A_i) \qquad M_i = \sum_{i=1}^{k} m_i$$

AA_i = The ith Adverse Affects Area
R_i = Adverse Affect Multiplier for AA_i
r = Adverse Affect Factor
N = number of unique adverse affect areas
k = number of factors under consideration

A_i = The ith Area of Mitigation
M_i = Mitigation Multiplier for A
m = Mitigation Factor
n = number of unique mitigation areas

The RMC and PMC are each a summation of products. To calculate each product, one should first evaluate the areas under consideration and lump similar areas. It is appropriate to lump adverse affects areas (AA_i) which involve the same adverse affect factors (r_i). Similarly, it is appropriate to lump mitigation areas (A_i) which involve the same mitigation factors (m_i). For example, if there are four separate adverse affects areas but they are all to be filled, are all Type B wetlands, all fill will be permanent, and all work has a low preventability rating then all four areas can be lumped into one total area for purposes of calculating the RMC. Such lumping is just for mathematical simplification and will not affect the resulting calculations. The adverse affects multipliers (R_i) for an area (AA_i) are calculated by summing the applicable adverse affect factors (r_i) selected from the attached tables. Similarly, the mitigation multipliers (M_i) for a mitigation area (A_i) are calculated by summing the applicable mitigation factors (m_i) selected from the attached tables. The math is much simpler than the explanation.

Each category of mitigation (Restoration, Creation, etc.) has it own table of factors which are used to compute the credit multipliers for each unique mitigation area. Sample worksheets are provided for documenting and comparing the calculated PMC with the calculated RMC. These worksheets may be readily adapted for the computer.

5. Mitigation Variance Approval. The following formula and table establishes levels of authority for approval of mitigation plans where the proposed mitigation is not in accord with the mitigation formula. The mitigation variance shown in the table is the maximum variation which can be approved at the indicated level. This allowance for variance is intended only for situations where the mitigation formula is found to be unreasonable or otherwise not in the public interest. *The Project Manager must document the reasons for any approved variances.*

$$\text{Mitigation Variance} = \left(\frac{\text{Required} - \text{Proposed}}{\text{Required}} \right) \times 100\%$$

Mitigation Variance	Approval Authority
0 - 15%	Project Manager
15 - 30%	Section Chief
30 - 50%	Branch Chief
over 50%	District Engineer

6. Processing Procedures.

6.1. *Information required.* The following information will be required for consideration of a mitigation proposal. Applicants are encouraged to provide the CoE multiple (at least 8) copies of proposals to expedite agency notification. The CoE will review all proposals and the applicant will be advised what additional information will be required to make the proposal adequate for consideration. The following information requirements relate exclusively to review of mitigation proposals. Other information may be needed as part of the CoE General Permit Notification process, Nationwide Permit Notification process, or Individual Permit process. Those requirements are not addressed herein.

a. Plans and detailed information regarding the work for which the mitigation is required.
b. Drawings in accordance with the requirements given in this SOP.

c. A proposed monitoring plan and a plan for documenting baseline conditions of the mitigation site.
d. Names, addresses, and phone numbers for all parties responsible for mitigation and monitoring.
e. A description of the existing conditions of all areas to be affected by the proposed mitigation.
f. A narrative discussion of the key elements of the proposed mitigation plan.
g. A schedule showing earliest start and latest completion dates for all significant activities.
h. A listing of measurable success factors with quantifiable criteria for determining success.
i. Definitions for all success factors and other significant terms used in the plan.
j. Description of the equipment, materials, and methods required for execution of the plan.
k. A management plan, if necessary, for any maintenance of the mitigation. (Note well Article 7.7)

6.2. *Distribution.* Generally, complex mitigation proposals requiring bound or voluminous information shall not be distributed via public notice mailings in order to minimize reproduction and mailing costs. For minor projects with mitigation proposals which are fully shown on a few pages, the Project Manager may include the mitigation proposal with the public notice for the permit application. When the proposal is distributed via the public notice it must be clearly labeled as the mitigation proposal.

7. **General Guidelines.** All mitigation must be designed in accordance with the following guidelines. A mitigation area may not be given credits under more than one mitigation category. For example, a contiguous created wetland area donated to a conservancy organization with a deed restricted upland buffer may be credited as either creation or enhancement or preservation but can only be credited as one of the three allowable types.

7.1. *Preservation.* Such protection must include restrictive covenants or similar measures setting the preserved areas aside in perpetuity as natural areas. The covenants must be duly recorded with the appropriate local entity (i.e., Clerk of Court, RMC, etc.). **The covenants must declare that no alterations such as clearing, grubbing, cutting, draining, filling, etc., can occur in these areas.** The applicant may contact Charleston District for sample language for the restrictive covenants. In the event that these areas are conveyed to another organization (e.g., homeowners association) or if any parts of these areas are sold to individuals, the preservation area must be clearly shown on the plat and defined in appropriate documents utilized for that transaction. The permittee will be responsible for insuring that each buyer is advised of the restrictions on the use of the property. In calculating mitigation credits it will not be allowed to provide a majority of the required mitigation thru preservation. At least 50% of the required mitigation credit must be from restoration, creation, and/or enhancement.

7.2. *Buffer Zones.* In order to assure that buffer zones serve the intended use in perpetuity, they should be protected by restrictive covenants or similar measures as stated in Section 7.1 above. Buffer zones which have acceptable restrictive covenants will qualify as preservation for the calculation of mitigation credits. **Buffers which do not have acceptable restrictive covenants will not be included or considered in the calculation of mitigation credits.** In general, buffers should be of adequate width to serve the intended purpose. In calculating mitigation credits, only those portions satisfying the width requirements given in the following table will be considered. Buffers which do not meet the minimum average width requirement will not be included in calculating mitigation credits. Buffers which exceed the allowed maximum average width will be included in calculating credits, but the calculation for such areas shall be based on the allowed maximum stated in the table and not on the actual width.

Buffer Zone Width Standards for Mitigation Credit

Adjacent Land Use Category	Minimum Average Width in Feet	Maximum Average Width in Feet
Single Family Residential	35	50
Multi-Family Residential	50	75
Commercial	75	100
Industrial	75	100
Landfill	75	150

7.3. *Enhancement.* Except for the provisions stated below for buffering credits, proposed mitigation plans for enhancement must include the following information:

a. An explanation of what values or functions are being enhanced and to what degree.
b. A narrative description of how the enhancement will be accomplished.

7.3.1. Enhancement by Buffering. When a proposed mitigation plan includes buffer zone(s) with acceptable restrictive covenants which completely surround the perimeter of a special aquatic site, and the surrounded site is also protected by acceptable restrictive covenants, then enhancement mitigation credit will be allowed for the surrounded special aquatic site. When buffer zone(s) with acceptable restrictive covenants partially surround a special aquatic site, and the aquatic site is protected by acceptable restrictive covenants, then enhancement credit will be allowed for a portion of the aquatic site. Such portion shall equal the area of the surrounding preservation buffer or the area of the special aquatic site, whichever is less. The surrounding buffer zones(s) may not include any portion of the aquatic site. That is to say, it is not allowed to designate a portion of the aquatic site as preservation buffer in order to gain enhancement credit for the remaining area. The credited surrounding buffer zone must consist of uplands. Any significant aquatic portions of the buffer zone will not be included in calculating enhancement credits.

7.3.2. Enhancement of Lakes and Ponds. Enhancement of lakes or ponds will generally not be allowed as compensatory mitigation for adverse impacts to vegetated wetlands. Credit may be allowed as compensation for impacts to other open surface waterbodies if buffer zone(s) are established around the perimeter of the lake or pond and the buffer zone(s) have acceptable restrictive covenants. Enhancement credits for such buffered lakes and ponds shall be based on an area of the waterbody equal to the area of the restricted buffer zone surrounding the waterbody. For example, if an 18 acre lake is partially or totally surrounded by an acceptable 5 acre deed restricted buffer zone then enhancement credit will be allowed for a five acre portion of the lake.

7.4. *Creation.* In designing creation mitigation, care should be taken to avoid the selection of high quality upland habitat for conversion. Designers should use good judgment in selecting sites for wetland creation. For example, a cut-over area or former agricultural field would be ecologically preferable to a mature forested area as a candidate for alteration. Mature forested areas will generally not be approved as suitable creation areas.

7.4.1. Creation of Lakes and Ponds. Creation of lakes or ponds may be allowed as compensation for impacts to other open surface waterbodies. Creation of lakes or ponds will generally not be acceptable as compensatory mitigation for adverse impacts to vegetated wetlands. However, it is understood that created waterbodies may provide some valuable public interest factors such as storm water storage,

fisheries habitat, or ground water recharge. Therefore, in recognition of this counterbalancing effect, the adverse affect factor for flooding has been made significantly lower than most other factors in its category.

7.5. *Location.* Where practicable and feasible, mitigation should be on the project site and within the same watershed as the area of adverse impacts for which the mitigation is required. Mitigation which fails to meet this standard will always result in a lower credit calculated under the mitigation equation.

7.6. *Scheduling.* When practicable and feasible, all mitigation should be completed either prior to or concurrent with the authorized activity. The preferred method is to complete mitigation prior to the commencement of the permitted activity. However, it is recognized that because of equipment utilization the permittee may need to perform the mitigation work concurrently with the overall project. This is usually acceptable provided that the time lag between the alteration and mitigation is minimized and the mitigation work is completed within one growing season of the commencement of the authorized alteration. Justification must be provided for all schedules showing less than 50% completion of the mitigation work prior to commencement of the permitted activity.

7.7. *Maintenance.* Mitigation plans which require periodic maintenance, management, or other human intervention will usually not be acceptable to the CoE. All mitigation areas should be designed to be naturally sustaining following the completion of the mitigation. Care should be taken that hydrology is adequately considered since plans requiring an energy subsidy (pumping, intensive management, etc.) will normally not be acceptable.

7.8. *Contingency Measures.* For major mitigation projects, the plan must include contingency measures specifying remediation procedures which will be followed should the success criteria or scheduled performance criteria not be fully satisfied. The contingency measures must list the names, addresses, and phone numbers of all parties responsible for the remediation. The contingency measures must provide for an alternative mitigation location should the initial site prove unsuccessful.

8. Monitoring Plans. The applicant will be required to monitor the mitigation area for success and to provide written reports describing the findings of the monitoring efforts. Such reports will normally involve photographic documentation and information on species survival rates. Because of the many variables involved, no specific standards are set forth as a part of this policy. Instead, a monitoring plan must be submitted as a part of the mitigation proposal for review. All monitoring efforts should include, as a minimum, quarterly reviews in the first year and annually thereafter. Samples of previously submitted and approved monitoring plans will be made available upon request.

9. Drawings. Mitigation plans must include drawings in conformance with the following requirements.

a. Drawings must be provided on 8.5 x 11 inch or 8.5 x 14 inch paper. For major mitigation projects, plans must also be submitted on paper sized no smaller than 18 x 24 inch and no greater than 30 x 42 inch. Drawings must be clear, readable, and reproducible on standard, non-color office copiers. Each drawing sheet must include the following:

(1) an unused margin of no less than ½ inch and no greater than 2 inches;
(2) an appropriate graphic scale (where reasonable);
(3) all significant dimensions clearly indicated and annotated;
(4) title block with applicant's name, project title, site location, drawing date, and drawing number;
(5) a north arrow.

b. Location maps for the proposed activity must be included. Two maps are needed. A County road map and a US Geological Quadrangle map are recommended as sources. The location maps must show roads leading to the site and must include the name or number of these roads. The project latitude and longitude must be annotated on the maps. Each map must include a title block completed in accordance with 9.a.(4).

c. Plan views of the proposed mitigation must be included. These drawings must show the general and specific site location and character of all proposed activities, including the relationship of all proposed work to all Waters of the United States in the vicinity of the project.

d. For all non-preservation mitigation areas, cross section views must be shown through each mitigation area depicting the existing ground contour and the proposed finished contour.

e. All wetland areas within the project boundaries (avoided, impacted, or mitigated) must be shown.

f. All verified wetland boundaries must be shown.

g. Mitigation areas must be shown (enhancements, creations, restorations, etc.).

h. A legend must be shown identifying each type of cross-hatching, shading, or other marking techniques used.

i. A summary table indicating the quantity (area) of each category of impacted U. S. Waters (e.g. Carolina Bays, salt marsh, open surface river, etc.) and the quantity (area) of each category of mitigation must be shown on the drawings.

j. Show the ordinary high water line of all affected and all adjacent non-tidal open surface waterbodies.

k. Show the mean high tide line and spring high tide line of all affected and all adjacent tidal waterbodies.

l. If the plan involves dredging in navigable waters, the drawings must include:

(1) The method of dredging;
(2) The site and plans for disposal of the dredged material;
(3) A description of the type, composition and quantity of the material to be dredged.

m. If the plan includes the discharge of dredged or fill material into Waters of the United States or the transportation of dredged material, the drawings must include:

(1) The source of the material;
(2) A description of the type, composition and quantity of the material;
(3) The method of transportation and disposal of the material;
(4) The location of the disposal site.

n. For mitigation plans which involve more than ten acres of creation, restoration, enhancement, or a combination thereof, verified topographic maps showing the contours and elevations of the completed mitigation area must be submitted. The verified drawings must show the locations of plantings, type of plantings, and all other structures and work which are a significant part of the mitigation.

10. Mitigation Banking. Proposals involving mitigation banking must be in accordance with current guidelines in use by the Corps of Engineers. While this SOP does not provide guidelines for mitigation banking, it should be apparent that such measures could easily be added at some point in the future. Applicants should request a copy of the most recent guidelines regarding mitigation banking before developing proposals involving mitigation banking.

11. Glossary. The acronyms, abbreviations, and terms used in this document are in accordance with the definitions given in Charleston District Regulatory Branch's SOP titled *Terminology and Definitions*. For the purposes of this SOP, certain additional terms are defined in the attachments and as follows:

Adverse effects as used in this SOP means any adverse ecological effect on Waters of the United States including all filling, excavating, flooding, draining, clearing, or similar changes affecting U. S. Waters. Other categories of effects such as aesthetic, cultural, historic, health, etc., are not addressed by this SOP.

Buffer zone means an area designed to separate. As used in this SOP it refers to a defined area intended to separate and protect an aquatic area from upland development or adverse effects. If the buffer zone is protected by suitable restrictive covenants or similar measures then it may qualify as preservation in the calculation of mitigation credits.

Compensatory mitigation means compensating for the adverse effects by replacing or providing substitute resources or environments. Categories of compensatory mitigation for ecological effects include creation, restoration, enhancement, and preservation.

Effect is defined by Webster to mean something that inevitably follows an antecedent (as a cause or agent). The Council on Environmental Quality (CEQ) has defined at 40 CFR Part 1508.8 that the words *impacts* and *effects* are synonymous and that *effects* includes ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Further, the CEQ stated that *effects* include:

a. Direct effects, which are caused by the action and occur at the same time and place.

b. Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.

This SOP is limited to evaluation of compensatory mitigation plans for adverse ecological effects. Mitigation for other categories of effects (e.g., historic, cultural, aesthetic) is not addressed in this SOP.

Mitigate, as defined by Webster, means to cause to become less harsh or hostile, or to make less severe. The Council on Environmental Quality has defined at 40 CFR Part 1508.20 that *mitigation* includes the following:

a. Avoiding the impact altogether by not taking a certain action or parts of an action.

b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

e. Compensating for the impact by replacing or providing substitute resources or environments.

This SOP is limited to evaluation of compensatory mitigation plans for adverse ecological effects. Categories of mitigation other than compensation (e.g., avoidance, minimization, reduction) are not addressed by this SOP. Normally, before compensatory mitigation is considered, other categories of mitigation should be evaluated consistent with the sequencing requirements of the MOA between the CoE and EPA.

Special aquatic sites means wetlands, mud flats, vegetated shallows, coral reefs, riffle and pool complexes, sanctuaries, and refuges as defined at 40 CFR 230.40 thru 230.45.

Threshold means the level, point, or value above which something is true or will take place and below which it is not true or will not take place. For the purposes of this SOP, the thresholds given herein are considered to be the level of adverse impacts caused by the proposed project above which the project fails to meet the conditions, limitations, restrictions, or other requirements specified in relevant laws or regulations.

Acronyms and Abbreviations.

CoE	Corps of Engineers
DE	District Engineer
DHEC	S. C. Dept. of Health and Environmental Control
EPA	U. S. Environmental Protection Agency
FWS	U. S. Fish and Wildlife Service
MOA	Memorandum of Agreement
NMFS	National Marine Fisheries Service
NWP	Nationwide Permit
SAC	South Atlantic Division, Charleston District
SCCC	S. C. Coastal Council
SOP	Standard Operating Procedure
WMRD	S. C. Wildlife and Marine Resources Dept.
WRC	S. C. Water Resources Commission

12. Signature Authority. All letters regarding Mitigation Plans subject to this SOP will be signed at the appropriate authority level indicated below. Any letters which do not fall into one of the categories listed below shall be signed by the District Engineer or his designated representative.

12.1. *Routine Actions.* The following categories of letters regarding projects subject to this SOP are considered routine actions and may be signed by Project Managers except that any letter falling into a category listed under Articles 12.2 or 12.3, shall be signed by the authority level indicated in that article.

a. Letters responding to requests for information.
b. Letters responding to requests for delineations or verification of delineations.
c. Letters requesting additional information from applicants.

12.2. *Standard Actions.* The following categories of letters regarding projects subject to this SOP are considered standard actions and will be signed by the Chief of the Permits Processing Section except that any letter falling into a category listed under Articles 12.1 or 12.3, shall be signed by the authority level indicated in that article.

a. Letters approving any mitigation plan.
b. Letters resolving any enforcement action.

12.3. *Special Actions.* The following categories of letters regarding projects subject to this SOP are considered special actions and will be signed at the authority level indicated below.

a. All letters of denial or disapproval shall be signed by the District Engineer or his designated representative.

b. All letters authorizing or approving a mitigation plan after any resource agency has recommended that the mitigation plan be disapproved shall be signed by the District Engineer or his designated representative.

c. All letters imposing special conditions regarding a mitigation plan or modifications to a mitigation plan which the applicant has not agreed to shall be signed by the District Engineer or his designated representative.

d. All letters authorizing or approving a mitigation plan when the calculated proposed mitigation credits are less than the calculated required mitigation credits shall be signed at the level authorized in Article 5 of this SOP.

e. All letters authorizing or approving a mitigation plan when the proposed plan deviates significantly from the policies and guidance given in this SOP, excluding variances covered in 12.3.d, above, shall be signed by the District Engineer or his designated representative.

13. Authorizing Signature. By the signature given below, this SOP is authorized as official policy of the Charleston District Regulatory Branch.

Clarence Ham

Clarence A. Ham, Chief
Regulatory Branch
Charleston District

Definitions and Explanations of Adverse Affects Factors

Adverse Affects Factors	Options					
Dominant Effect	Fill 2.0	Drain 1.8	Dredge 1.6	Flood 1.4	Clear 1.2	Shade 1.0
Lost Values	Type A 2.0	Type B 1.8	Type C 1.6	Type D 1.4	Type E 1.2	Type F 0.5
Duration of Effects	2+ yr. 1.0	1-2 yr. 0.5	0-1 yr. 0.2	Seasonal 0.1		
Preventability	High 2.0	Medium 1.0	Low 0			

Clear means to remove unwanted growth or items.

Draining means any ditching, channelization, or excavation that results in the removal of water from an aquatic area causing the area, or a portion of the aquatic area, to change over time to a non-aquatic area or to a different type of aquatic area.

Dredge means to dig, gather, pull out, or excavate from U. S. waters.

Fill material means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a waterbody. The term does not include pollutants discharged primarily to dispose of waste.

Flood means to cover with an open-surface waterbody such as a lake or pond.

Lost Value categories are defined as follows:

Type A
a. Swamps/Floodplains - Oak/Red Maple/Sweet Gum Dominated - PFO1C & wetter.
b. Pocosin/Carolina Bays.
c. All Emergent Marshes.

Type B Consists of Value Type A areas which have been heavily disturbed, by legal activities in the distant past.

Type C
a. Swamps/Floodplains/Flats - Oak/Maple/Sweetgum Dominated - PFO/PSS1A.
b. Pond pine/pitcher plant flats/savannahs.

Type D Consists of Value Type C areas which have been heavily disturbed, by legal activities in the distant past.

Type E
a. Pine flatwoods - planted or natural - loblolly/slash pine dominated.
b. Naturalized borrow pits.

Type F All other habitat types not categorized above.

Preventability is a subjective measurement of the degree to which the adverse effects could be prevented. Note well Article 2 of this SOP. This factor is intended primarily for Nationwide Permit mitigation. All Individual Permits must satisfy the 404(b)(1) guidelines regarding avoidance, minimization, etc. Preventability levels are defined as follows:

a. *High* means there may be practicable, less damaging alternatives that satisfy the purpose of the project.
b. *Medium* means there may be alternatives but it is unclear if they satisfy the project purpose or if they are practicable.
c. *Low* means there are no known alternatives which satisfy the purpose, are practicable, and are less damaging.

Seasonal means that the adverse affects are limited to times outside of applicable nesting, breeding, or growing periods.

Shading means to shelter or screen by intercepting radiated light or heat.

Definitions and Explanations of Mitigation Factors

Control means the responsible party to which the preserved area is deeded. Related terms are:

a. *Private* means a private individual or business enterprise.
b. *POA* means a property owners association or other similar, formally chartered, non-profit organization.
c. *Conservancy* means a qualified, experienced, and reputable non-profit conservation organization.

Creation of wetlands means the conversion of non-wetland habitat to wetland habitat. Wetland creation usually includes grading, providing a suitable substrate and establishment of appropriate vegetation.

Enhancement means increasing or improving one or more of the functions or values of an existing aquatic area.

Hydrology, as used in this SOP, means the properties, distribution, and circulation of water on the surface of the land, in the soil and underlying rocks. Related terms include:

a. *Natural hydrology* means the area's hydrology as it existed prior to the actions of modern man. Hydrology which has been restored to its natural state qualifies as natural hydrology. Examples of such restoration include filling ditches which drain the area or removing berms which prevent inundation.

b. *Created hydrology* means the permanent manipulation of the topography of the area resulting in an ecologically significant change in the hydrology of the area.

c. *Mechanical hydrology* means the employment of mechanical methods (e.g., pumps) to supply water to an area thereby causing an ecologically significant change in the hydrology of the area. (Caution - note well Article 7.7 of this SOP)

In-kind Mitigation means the replacement of the impacted aquatic site with one of the same plant community type (same species composition). However, if the new ecosystem is one which is generally regarded to be of higher value than the impacted ecosystem then the mitigation is considered in-kind for purposes of calculating mitigation credits. For example, if a wooded swamp habitat is to be filled or altered and it is replaced by restoration of a cleared and drained former wooded swamp area, this would constitute in-kind restoration.

Location means the site at which the mitigation will be performed. Related terms include:

a. *On Site* means within the project boundaries and the impacted watershed.
b. *Inside* means within the impacted watershed.
c. *Outside* means outside of the impacted watershed.

Maintenance means any planned, expected, or required manipulation or action after completion of the monitoring period which is necessary to achieve the mitigation goal. Remedial or planned work during the monitoring period is not considered maintenance but is rather just a part of the mitigation work. Minimal (low level) maintenance includes weeding or removal of unwanted pest species. Moderate maintenance includes some replanting of the desired vegetation (<10% of the planted species). High level maintenance includes significant replanting (>10% of plantings), addition of soils, hydrology manipulation, or other actions. (Caution - note well Article 7.7 of this SOP)

Monitoring means the collection of field data to measure the success of a mitigation or restoration effort. It usually includes analysis of the data, and submittal of a comprehensive report containing the data, analyses, and a narrative discussion of the findings and conclusions.

Net improvement is a subjective evaluation by the Corps of the net level of enhancement of all affected functions and values of an aquatic site. Adverse effects, if any, caused by the enhancement must be considered in determining the net improvement.

Out-of-kind Mitigation means the replacement of an impacted aquatic site with one of a different plant community type (different species composition). However, if the new ecosystem is one which is generally regarded to be of higher value than the impacted ecosystem then the mitigation is considered in-kind for purposes of calculating mitigation credits. For example, if a wooded swamp habitat is to be filled or altered and the mitigation consists of grading an area and planting it in freshwater emergent marsh species, this would be out-of-kind.

Definitions and Explanations of Mitigation Factors

Preservation means the conservation of an area to prevent its exploitation or destruction. In order to qualify for mitigation credit, all preservation areas must comply with the requirements of Article 7.1.

Restoration means actions taken to correct previous alterations which have either destroyed or seriously impaired the values and functions of an aquatic area. An example of restoration is the hydrological alteration followed by the planting of appropriate wetland vegetation in a bottomland hardwood area that had previously been converted to another use, such as agriculture or silviculture.

Soil means the upper layer of earth which may be dug or plowed and in which plants grow. Related terms include:

a. *Existing Suitable Soil* (E. S. S.) means the appropriate use of soils existing at the mitigation site or contiguous with the site and which have been determined to be of a proper type for the proposed mitigation.

b. *Transferred Suitable Soil* (T. S. S.) means the appropriate use of soils imported to the mitigation site from a non-contiguous location which have been determined to be of a proper type for the proposed mitigation.

c. *Unknown Suitability Soil* (U. S. S.) means use of a soil type or source that is of unproven or uncertain suitability for the proposed mitigation.

Timing means the point in time when the mitigation will be performed. Related terms include:

a. *Prior* means before the permitted impact occurs.
b. *Concurrent* means at the same time as the permitted impact.
c. *After* means subsequent to the permitted impact.

Vegetation means the plant material within a defined area. Related terms used in this SOP include:

a. *Transplanted* means using natural vegetation from a site similar to the proposed completed mitigation site.
b. *Nursery* vegetation means the use of nursery stock.
c. *Natural* vegetation involves no planting and allows spontaneous revegetation.

Worksheet for Calculating
Required Mitigation Credits

Table of Adverse Affect Factors *

Factors	Options					
Dominant Effect	Fill 2.0	Drain 1.8	Dredge 1.6	Flood 1.4	Clear 1.2	Shade 1.0
Lost Values	Type A 2.0	Type B 1.8	Type C 1.6	Type D 1.4	Type E 1.2	Type F 0.5
Duration of Effects	2+ yr. 1.0	1-2 yr. 0.5	0-1 yr. 0.2	Seasonal 0.1		
Preventability	High 2.0	Medium 1.0	Low 0			

* See Attachment A for definitions and clarification.

Required Mitigation Credits

	Dominant Effect	Lost Values	Duration of Effect	Preventability	Sum of r Factors	Area of Impact	R x AA
Area 1					R_1 =	AA_1 =	
Area 2					R_2 =	AA_2 =	
Area 3					R_3 =	AA_3 =	
Area 4					R_4 =	AA_4 =	
Area 5					R_5 =	AA_5 =	
Area 6					R_6 =	AA_6 =	
Area 7					R_7 =	AA_7 =	
Area 8					R_8 =	AA_8 =	
Area 9					R_9 =	AA_9 =	
Area 10					R_{10} =	AA_{10} =	

Total Required Credits ** = Sum of all (R x AA) = [ ]

** Transfer to Row A on Sheet 6.

Worksheet for Calculating
Creation Mitigation Credits

Table of Creation Mitigation Factors *

Factors	Options			
Kind		Lake or Pond 0.1	Out of Kind 0.3	In Kind 0.6
Dominant Location		Outside 0.3	Inside 0.4	On Site 0.5
Timing		After 0.2	Concurrent 0.3	Prior 0.4
Soils	N. A. 0	U. S. S. 0	T. S. S. 0.1	E. S. S. 0.2
Hydrology	N. A. 0	Mechanical 0	Created 0.2	Natural 0.3
Vegetation	N. A. 0	Natural 0.1	Nursery 0.2	Transplant 0.3
Monitoring	N. A. 0	1-2 Years 0.2	2-5 Years 0.3	5+ Years 0.4
Maintenance	N. A. 0	Moderate 0	Low 0.1	None 0.4

* See Attachment B for definitions and clarification. N. A. = Not Applicable

Creation Mitigation Credits

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Kind						
Location						
Timing						
Soils						
Hydrology						
Vegetation						
Monitoring						
Maintenance						
Sum of m Factors	M_1 =	M_2 =	M_3 =	M_4 =	M_5 =	M_6 =
Mitigation Area	A_1 =	A_2 =	A_3 =	A_4 =	A_5 =	A_6 =
M x A =						

Total Creation Credits ** = Sum of all (M x A) = [ ]

** Transfer to Row B on Sheet 6.

Worksheet for Calculating
Restoration Mitigation Credits

Table of Restoration Mitigation Factors *

Factors	Options			
Kind			Out of Kind 0.4	In Kind 0.7
Dominant Location		Outside 0.4	Inside 0.5	On Site 0.6
Timing		After 0.3	Concurrent 0.4	Prior 0.5
Soils	N. A. 0	U. S. S. 0.1	T. S. S. 0.2	E. S. S. 0.3
Hydrology	N. A. 0	Mechanical 0	Created 0.3	Natural 0.5
Vegetation	N. A. 0	Natural 0.2	Nursery 0.3	Transplant 0.4
Monitoring	N. A. 0	1-2 Years 0.3	2-5 Years 0.4	5+ Years 0.5
Maintenance	N. A. 0	Moderate 0	Low 0.1	None 0.5

* See Attachment B for definitions and clarification. N. A. = Not Applicable

Restoration Mitigation Credits

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Kind						
Location						
Timing						
Soils						
Hydrology						
Vegetation						
Monitoring						
Maintenance						
Sum of m Factors	M_1 =	M_2 =	M_3 =	M_4 =	M_5 =	M_6 =
Mitigation Area	A_1 =	A_2 =	A_3 =	A_4 =	A_5 =	A_6 =
M x A =						

Total Restoration Credits ** = Sum of all (M x A) = ____

** Transfer to Row C on Sheet 6.

Worksheet for Calculating
Enhancement Mitigation Credits

Table of Enhancement Mitigation Factors *

Factors	Options			
Kind			Out of Kind 0.2	In Kind 0.5
Dominant Location		Outside 0.2	Inside 0.3	On Site 0.4
Timing		After 0.1	Concurrent 0.2	Prior 0.3
Net Improvements	N. A. 0	Low 0.1	Moderate 0.3	High 0.5
Monitoring	0-1 Years 0	1-2 Years 0.1	2-5 Years 0.2	5+ Years 0.3
Maintenance	N. A. 0	Moderate 0	Low 0.1	None 0.3

* See Attachment B for definitions and clarification. N. A. = Not Applicable

Enhancement Mitigation Credits

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Kind						
Location						
Timing						
Net Improvement						
Monitoring						
Maintenance						
Sum of m Factors	M_1 =	M_2 =	M_3 =	M_4 =	M_5 =	M_6 =
Mitigation Area	A_1 =	A_2 =	A_3 =	A_4 =	A_5 =	A_6 =
M x A =						

Total Enhancement Credits ** = Sum of all (M x A) = [ ]

** Transfer to Row D on Sheet 6.

Worksheet for Calculating
Preservation Mitigation Credits

Table of Preservation Mitigation Factors *

Factors	Options		
Kind	Out of Kind 0.1	Buffer Zone 0.2	In Kind 0.4
Dominant Location	Outside 0.1	Inside 0.2	On Site 0.3
Timing	After 0.1	Concurrent 0.2	Prior 0.3
Control	Private 0.1	POA 0.3	Conservancy 0.5

* See Attachment B for definitions and clarification.

Preservation Mitigation Credits

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Kind						
Location						
Timing						
Control						
Sum of m Factors	M_1 =	M_2 =	M_3 =	M_4 =	M_5 =	M_6 =
Mitigation Area	A_1 =	A_2 =	A_3 =	A_4 =	A_5 =	A_6 =
M x A =						

Total Preservation Credits ** = Sum of all (M x A) = [ ]

** Transfer to Row F on Sheet 6.

Summary Worksheet for
Mitigation Credits

		Credits	Totals
A	Required Mitigation Credit		
B	Mitigation Credits by Creation		
C	Mitigation Credits by Restoration		
D	Mitigation Credits by Enhancement		
E	Non-Preservation Mitigation Credits = B + C + D		
F	Mitigation Credits by Preservation		
G	Total Proposed Mitigation Credits = E + F		

The total Mitigation Credits (Row G) should be equal to or greater than the total Required Mitigation Credits (Row A) for the proposed mitigation to be acceptable. The other requirements given in the SOP must also be satisfied, e.g., Row E must be at least 50% of Row A, drawings must be in accordance with Article 9 of the SOP, etc.

If the answer to either of the questions below is no, then the proposed mix and/or quantity of mitigation is not acceptable and the plan should be revised or rejected, unless a variation is approved in accordance with Article 5 of this SOP.

	Yes	No
PMC $\geq$ RMC or in words Is Row G greater than or equal to Row A ?		
$PMC_{Non\text{-}Preservation} \geq$ ½ RMC or in words Is Row E greater than or equal to 50% of Row A ?		

Sample Case #1

The proposed activity includes clearing and direct fill of 1 acre of Type C forested wetlands for construction of a dam, clearing and innundation of 6 acres of Type C forested wetlands, and the construction of permanent access roads over 0.5 acres of Type D forested wetlands. The purpose of the project is to provide a reservoir for fire protection and recreation for a private residence. The applicant proposes to provide mitigation by restorion and preservation. The proposed mitigation consists of restoring 9.5 acres of drained, cleared silvicultural land to its natural state of forested wetlands and preservation of 3.5 acres of Carolina Bays by donation to a qualified conservancy. The plan includes a 3 year monitoring plan, restoration of the natural hydrology by filling drainage ditches, and transplanting vegetation from the impacted area to the restoration area. No maintenance will be required after the mitigation plan has been completed. The restoration site is adjacent to the proposed innundated area and the mitigation will be done concurrently with the proposed activity.

Required Mitigation Credits

	Dominant Effect	Lost Values	Duration of Effect	Preventability	Sum R	Impact Area AA	Product R x AA
Area 1	2.0	1.6	1.0	1.0	5.6	1.0	5.6
Area 2	1.4	1.6	1.0	1.0	5.0	6.0	30
Area 3	2.0	1.4	1.0	0.0	4.4	0.5	2.2

Total Required Credits = 37.8

Restoration Mitigation Credits

Kind	0.7
Location	0.6
Timing	0.4
Soils	0.2
Hydrology	0.5
Vegetation	0.4
Monitoring	0.4
Maintenance	0.5
M = Sum of Factors	3.7
A = Mitigation Area	9.5
Credits = M x A	**35.15**

Preservation Mitigation Credits

Kind	0.1
Location	0.2
Timing	0.3
Control	0.5
M = Sum of Factors	1.1
A = Mitigation Area	3.5
Credits = M x A	**3.85**

Summary of Mitigation Credits

Mitigation Category	Mitigation Credits
Preservation	3.85
Restoration	35.15
Total Credits	**39.0**

$PMC \geq RMC$

$39.0 \geq 37.8$

$PMC_{\text{Non-Preservation}} \geq \frac{1}{2} RMC$

$35.15 \geq 18.9$

Since the Total Proposed Mitigation Credits (39.0) are greater than the Total Required Mitigation Credits (37.8), and the credits for restoration are more than ½ of the required credits, the quantity and mix of mitigation is acceptable. The Project Manager must also review the other aspects of the mitigation plan to assure that it is in compliance with the general guidelines for mitigation.

Sample Case #2

The proposed activity is construction of a road which crosses several wetland systems above the headwaters. The work will require landclearing and filling of 5 acres of Type C wetlands and 4 acres of Type E wetlands. The purpose of the project is to provide a public access roadway. The applicant proposes to provide mitigation by creation and preservation. The proposed mitigation consists of creating 16.4 acres of forested wetlands and preservation of 5 acres of emergent wetlands by donation to a qualified conservancy. The plan includes a 4 year monitoring plan, created hydrology by grading, and transplanting vegetation from the impacted area to the creation area. No maintenance will be required after the mitigation plan has been completed. The creation site is adjacent to the proposed filled area and the mitigation work will be done concurrently with the proposed activity.

Required Mitigation Credits

	Dominant Effect	Lost Values	Duration of Effect	Preventability	Sum R	Impact Area AA	Product R x AA
Area 1	2.0	1.6	1.0	1.0	5.6	5.0	28.0
Area 2	2.0	1.2	1.0	1.0	5.2	4.0	20.8

Total Required Credits = 48.8

Creation Mitigation Credits

Kind	0.6
Location	0.5
Timing	0.3
Soils	0.2
Hydrology	0.2
Vegetation	0.3
Monitoring	0.3
Maintenance	0.4
M = Sum of Factors	2.8
A = Mitigation Area	16.4
Credits = M x A	45.92

Preservation Mitigation Credits

Kind	0.1
Location	0.2
Timing	0.2
Control	0.5
M = Sum of Factors	1.0
A = Mitigation Area	5.0
Credits = M x A	5.0

Summary of Mitigation Credits

Mitigation Category	Mitigation Credits
Preservation	5.0
Creation	45.92
Total Credits	50.92

$PMC \geq RMC$

$50.92 \geq 48.8$

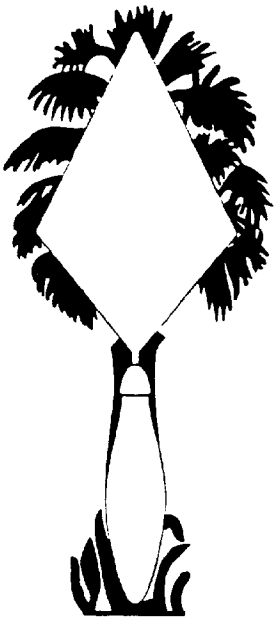
$PMC_{\text{Non-Preservation}} \geq \frac{1}{2} RMC$

$45.92 \geq 24.4$

Since the Total Proposed Mitigation Credits (50.92) are greater than the Total Required Mitigation Credits (48.8), and the credits for creation are more than ½ of the required credits, the quantity and mix of mitigation is acceptable. The Project Manager must also review the other aspects of the mitigation plan to assure that it is in compliance with the general guidelines for mitigation.

APPENDIX D

Guidelines and standards for archaeological investigations



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Introduction

This *Guidelines and Standards* has been designed as a framework for archaeological fieldwork and reporting in the state of South Carolina. It supplies an unambiguous set of minimum standards, which project archaeologists, administrators, and other interested parties can use to prepare reports and case studies like those initiated or conditioned by Section 106 of the National Historic Preservation Act of 1966, as amended.

Dr. Linda France Stine authored the initial draft of this *Guidelines and Standards*. The South Carolina State Historic Preservation Office (SHPO) offered the draft for review by the state archaeologist at the South Carolina Institute of Archaeology and Anthropology, the National Park Service, the Advisory Council on Historic Preservation, the US Forest Service, the US Army Corps of Engineers, the South Carolina Department of Highways and Public Transportation, the Charleston Museum, the Chicora Foundation, the Council of South Carolina Professional Archaeologists, various State Historic Preservation Offices, and others. Staff archaeologists Lee Tippett and Charlie Hall then used the comments the office received during the review period to revise and edit the draft and produce this final version. The SHPO gratefully acknowledges all who made suggestions and comments. It welcomes further public comment and will use those comments when it periodically reviews and revises the publication.

If you have any questions about these *Guidelines and Standards* or about archaeology in South Carolina, please call the SHPO staff archaeologists at (803) 734-8609.

Federal legislation and regulations

The South Carolina SHPO

The following pieces of federal legislation created the need and the legal mandates for the work of the South Carolina SHPO: the National Historic Preservation Act of 1966 (as amended), Executive Order 11593, the National Environmental Policy Act of 1966, and the regulations promulgated by the Department of the Interior (36 CFR 60, 36 CFR 63,

and 36 CFR 66) and the Advisory Council on Historic Preservation (36 CFR 800).

The South Carolina SHPO was created in 1969 to implement the statewide preservation program described by Section 101 of the National Historic Preservation Act. 36 CFR 61.2 outlines the SHPO's responsibility for the development of that program. In addition, under the regulations of the Advisory Council on Historic Preservation that govern the Section 106 review system, the SHPO is required to participate in the review process by considering and commenting on the effect that federal or federally-funded, -licensed, or -assisted projects will have on all historic and prehistoric sites, districts, buildings, structures, and objects that are judged worthy of inclusion in the National Register of Historic Places (NRHP).

National register criteria

36 CFR 60.4 describes the National Register criteria and says, "The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship feeling, and association and

a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
b. that are associated with the lives of persons significant in our past; or
c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
d. that have yielded, or may be likely to yield, information important in prehistory or history."

The Section 106 process

Section 106 of the National Historic Preservation Act requires federal agencies to review the effect their actions may have on historic properties that are listed in or eligible for the NRHP. Review procedures followed are referred to as "the Section 106

process" and are set forth in the regulations issued by the Advisory Council on Historic Preservation (36 CFR Part 800). The regulations emphasize the need for consultation between the federal agency taking action and the historic preservation officer in the state concerned. They also give the President's Advisory Council on Historic Preservation a reasonable opportunity to comment on federally-assisted, -licensed, or -funded actions. The Section 106 process is a broadly recognized aspect of statewide historic preservation planning. It is designed to identify historic properties that are eligible for listing in the NRHP and to reduce the adverse effects of projects on those properties.

The Guidelines and Standards

In publishing this *Guidelines and Standards,* South Carolina, like the majority of southeastern states, is specifying the minimum amount of technical information necessary to carry out archaeological investigations that will contribute to the statewide preservation plan.

South Carolina legislation

Although South Carolina now has no law to protect cultural resources in general, it does have some laws that protect cultural resources in particular situations.

The Coastal Zone Management Program

The South Carolina Coastal Council must ensure that projects that require state or federal permits and are within the Coastal Zone of South Carolina are consistent with the mandate of the Coastal Zone Management Program. The Coastal Zone consists of the following eight counties: Jasper, Beaufort, Colleton, Charleston, Dorchester, Berkeley, Georgetown, and Horry.

Section 15(6) of the South Carolina Coastal Zone Management Act of 1979 (amended 1990), says the Coastal Council must consider "the extent to which the development could affect . . . irreplaceable historic and archaeological sites of South Carolina's coastal zone." Section 8(B)(4) of the same act (Appendix B) requires this comprehensive management program to identify special management areas. These "areas of critical state concern" parallel the geographic areas of particular concern mandated by the Federal Coastal Zone Management Act of 1972.

Under its Coastal Zone Management Program, the Coastal

Council has designated certain natural and cultural areas as "Geographic Areas of Particular Concern" (GAPCs). GAPCs include archaeological sites that are on or eligible for nomination to the NRHP. The SHPO is asked to advise the Coastal Council on the management of cultural resources and to determine the eligibility of archaeological sites, structures, objects, and districts for nomination to the NRHP.

The Water Resource Commission

Under the 1967 South Carolina Water Resources Planning and Coordination Act (as amended), the state's Water Resource Commission must consider the effect that development on the state's ground and surface waters will have on cultural and environmental resources. This commission works closely with the Coastal Council and county planners to protect cultural resources.

Reclamation projects

The South Carolina Mining Act of 1990 (Section 48-20-10 et seq.) states that the South Carolina Land Resources Conservation Commission will require all reclamation plans to specify "proposed methods to limit significant adverse effects on significant cultural or historic sites" (Section 48-20-40 Part 15(g)). The SHPO is consulting with the Land Resources Conservation Commission regarding the interpretation and implementation of this stipulation.

Hazardous waste management

The South Carolina Department of Health and Environmental Control has recently published regulations governing the location of hazardous waste management facilities (SC Code 61-104). The regulation stipulates that hazardous waste treatment, storage, and disposal facilities will be prohibited in areas where they will "adversely impact an archeological site as determined by the State Historic Preservation Officer and the State Archaeologist or a historic site as determined by the State Historic Preservation Officer" (R. 61-104, IV, D.2.a.). The SHPO provides comment on how hazardous waste facilities will affect historic properties.

Local ordinances

Hilton Head Island has developed South Carolina's first local ordinance to protect archaeological sites (Ordinance No. 90-

10B, Proposed Ordinance No. 90-16, amending Title 17 of the Municipal Code 17-2-112). The ordinance protects all archaeological sites, or any area, structure or artifacts on such a site, from disturbance or removal without written permission from the town manager or a designee. The SHPO gives the town technical advice on the suitability of specific archaeological survey and excavation plans and reports.

Historic cemeteries

Several South Carolina Codes protect historic cemeteries—SC Code 27-43-10, Removal of abandoned cemeteries; 27-43-20, Removal to plot agreeable to governing body and relatives; 27-43-30, Supervision of removal work; and 16-17-600, Destruction of graves and graveyards. A 1989 amendment to Section 16-17-600 extended legal protection to the remains of Native Americans by changing the word "graveyards" to "burial grounds." This amendment also made the destruction or desecration of human remains a felony punishable by a maximum fine of two thousand dollars and imprisonment for not less than one year and up to ten years.

The S.C. Institute of Archaeology and Anthropology

The Code of Laws of South Carolina, 1976, Part 60-13-210, as amended by the General Appropriations Act of 1984-1985, gives the South Carolina Institute of Archaeology and Anthropology (SCIAA) the mandate to create and maintain a statewide inventory of archaeological sites and to care for the state's archaeological collections. The South Carolina Underwater Antiquities Act of 1991 makes SCIAA responsible for the management and protection of the state's underwater archaeological resources. SCIAA advises the SHPO on the eligibility of these underwater archaeological resources and on other archaeological matters on request. This publication does not include a discussion of underwater archaeological sites. If you have questions about them, you should contact SCIAA. ▮

The environmental review and Section 106 consultation process

Project review

Requests for consultation on projects that are subject to environmental review are directed to the SHPO. Among these are federally-sponsored, -funded, or -permitted projects that might affect cultural resources, and projects requiring permits or certification from the Coastal Council. Through the consultation process the SHPO can study the documentation on the project and assess the need for a cultural resources survey.

The SHPO will review these requests for consultation as expeditiously as possible. It reviews requests about Coastal Council or federally-assisted, -funded, or -permitted projects on a schedule that reflects a built-in time limit of 15 or 30 days. It tries to review requests about other potential projects within 30 days of receipt. The SHPO considers telephone responses to inquiries as informational only. These conversations, because of the danger of misunderstandings, will NOT constitute the agency's formal comment or opinion. The SHPO will write the official agency response under the Archives and History letter head.

Documentation

The SHPO review will be facilitated if the request for consultation includes the following information:

1. Project maps, including a copy of a 7.5' USGS topographic map that clearly and accurately locates the project boundaries and includes the quadrangle name and scale; a marked county highway map showing the name of the county; other survey maps as appropriate. Please include the name of the county with the letter of request.
2. A verbal description of the intended project, the project location, and the reason the review is requested (e.g. the federal or state permitting or funding requirement); a photograph of any structure standing on the property is helpful and is required if the

structure is 50 years old or older; a brief description of previous land use if you know what it was.
3. The applicant's name, address, and phone number. Please include a Federal Express or fax number if you need a quick response.
4. If you would like us to send copies of our response to other individuals, please include their names and addresses.

When the SHPO receives the request, it dates it and logs it into the SHPO environmental review system.

NRHP listings

The SHPO reviewer checks to see if the project will affect any archaeological sites, buildings, structures, objects, districts, or landmarks that are listed in the NRHP—the SHPO maintains an up-to-date listing of all NRHP places and objects by county, and the location of NRHP sites is also recorded on a set of USGS 7.5' topographic maps. If a structure or site is already listed on the NRHP, then the reviewer will determine the effect the project will have on that resource.

Reported sites

Next, the reviewer must see if the project will affect any sites, districts, objects, or structures whose potential for listing in the NRHP has not been recorded. SHPO survey files identify those areas where the built environment has already been adequately surveyed. In addition, the SHPO holds copies of SCIAA files on reported archaeological sites and copies of USGS 7.5' topographic maps with plotted site locations. The reviewer checks these records for potentially eligible historic districts and properties and compares the project topographic sheets with the agency maps to see if sites, both eligible and potentially eligible, have been recorded in the project area.

Knowledge of archaeological sites

While about thirteen thousand archaeological sites have been recorded in South Carolina, knowledge of the location and the significance of archaeological resources in the state is woefully incomplete. The very nature of the sites often hides them from casual view, and their identifica-

tion requires an archaeological survey—an investigation by a professional using specifically designed techniques. Although professionals have conducted many hundreds of surveys in South Carolina, they have covered only a small percentage of the state. Only two counties, Charleston and Greenwood, have received systematic reconnaissance-level surveys, and while these surveys supply enough detail for planning, they do not eliminate the need to explore the archaeological potential of an area project-by-project.

Thus, the reviewer must assess the adequacy of the knowledge regarding the cultural resources in a project area. The reviewer will first check to see if the area has been surveyed. The lack of a survey in the project area, however, will not, alone, trigger a recommendation for one. Rather, the reviewer will gauge the area's potential for containing archaeological resources by considering its geographical context. Ideally, the reviewer would base this judgment on a scientifically-tested model of site location. Unfortunately, South Carolina has no such model. But a number of factors are known to influence site location, and others are known to influence the condition or state of preservation of archaeological sites (see below). By comparing the setting of the project against these known factors, the reviewer can reasonably determine the probability of significant archaeological resources being located in the project area.

The reviewer will recommend a course of action based on the following factors:

1. presence of known sites within the boundaries of the project area;
2. known sites in the vicinity of the project area;
3. known sites on similar topographic relief;
4. soil types and drainage characteristics;
5 distance from fresh water;
6. proximity to historic roads, navigable waters, and paths;
7. present land use and past environmental conditions;
8. intensity of previous area surveys, if any; and

9. the expertise of the reviewer, including her/his basic knowledge of South Carolina history and archaeology.

Recommended actions

The SHPO follows the procedures recommended for Section 106 and related processes, as promulgated by the Advisory Council on Historic Preservation and codified at 36 CFR Part 800. The Advisory Council regulations stipulate that the actions recommended depend on the SHPO's determination of the effect a project will have on cultural resources.

No action

If no significant resources are recorded in the project area, and the SHPO thinks the probability of such resources being present is slight (see criteria in items #1-9 above), the SHPO will recommend no further action, will write a letter stating this, and will add the caveat that if any archaeological materials are uncovered, the SHPO should be informed immediately. If the SHPO receives such information, it will respond within 48 hours, specifying whether or not the archaeological resource that has been identified is eligible for the NRHP. If the SHPO cannot make this determination, it may recommend an archaeological assessment. In case of a disagreement regarding the eligibility of any archaeological site, a federal agency official, following specific Department of the Interior regulations, may request a determination from the Secretary of the Interior.

Survey

Whether significant resources are listed in the project area or not, the SHPO may decide that it needs an archaeological survey to make a responsible determination of effect. If no adequate survey has been undertaken and research indicates a reasonable probability that archaeological resources will be found within project boundaries (see criteria #1 - 9 above), then the SHPO will recommend an archaeological survey. It will write a letter stating this to the applicant and to state or federal agencies involved in the project. On request, SHPO archaeologists will help to formulate a scope-of-work for any project. See the

following section for guidelines for completing an archaeological survey.

Evaluate properties

When an adequate survey has been conducted, the SHPO will determine if the proposed project will affect any sites eligible for the NRHP. To do this, the SHPO will apply the criteria listed at 36 CFR 60.4 and will review the reported results of a professionally-conducted archaeological survey. The SHPO may conclude that either the survey effort or the report fails to adequately identify the archaeological resources the proposed undertaking has the potential to affect. It may also conclude that more fieldwork is required before responsible determinations of eligibility can be made for some or all of the archaeological resources identified (see Site testing under Methods below). Until these concerns are satisfied, the SHPO will be unable to complete its consideration of the effects of the proposed project on eligible sites.

For federally-assisted or -permitted undertakings, the determination of eligibility is the ultimate responsibility of the federal agency official overseeing the project. Federal regulations, however, require the federal agency official to reach this determination in consultation with the SHPO (36 CFR 800.4 (c)). If the federal official and the SHPO fail to agree on the eligibility of any property, the federal official can obtain a determination from the Secretary of the Interior.

For projects initiated by state regulations, including Coastal Council certification, the SHPO will evaluate the eligibility of the identified properties.

If properties listed in or eligible for the NRHP are located within the boundaries of any project, the SHPO must determine the effect the project will have on them.

Assess effects

Federal undertakings

The federal agency official must assess the effect of the project on any property eligible for the NRHP. As with

determinations of eligibility, federal regulations require the federal official to make this assessment in consultation with the SHPO; failures to agree may be referred to the Advisory Council for resolution. One of three assessments may be made:

No effect If no eligible properties are located within the project boundaries, the SHPO will assess the undertaking as having no effect and will recommend no additional work.

No adverse effect If the undertaking will have an effect on properties eligible for the NRHP, but the effect will not be harmful, the effect is considered not adverse. An effect is not adverse when the potential research value of the property is "substantially preserved through the conduct of appropriate research, and such research is conducted in accordance with applicable professional standards and guidelines;" when a structure or building is rehabilitated according to federal standards, or when the historic property will be part of a "transfer, lease or sale" and "adequate restrictions or conditions are included to ensure preservation of the property's significant historic features" (36 CFR Part 800.9(c)). Approved data recovery can thus lead to a finding of no adverse effect. (See below for guidelines for data recovery)

Adverse effect 36 CFR Part 800.9(b)—Criteria of Effect and Adverse Effect—says an adverse effect occurs when "the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association." At that time, the federal agency official, the Advisory Council on Historic Preservation, and the SHPO will consult to find a way to "avoid or reduce the effects on historic properties" (36 CFR Part 800.5(e)).

State projects

Determinations of effect and no effect pertain to Section 106 of the National Historic Preservation Act. This act and related procedures provide the SHPO with the model it uses to review and advise on Coastal Council regulated and certified projects, projects initiated by other state regulations, and projects subject to local ordinances like Hilton Head Island's. The SHPO uses a similar series of steps based on 36 CFR Part 800 in conjunction with these various laws, regulations, and ordinances and will determine effect in the manner prescribed above. If it concludes that a project will have an adverse effect on an eligible property, consultation among involved individuals, agencies, and municipalities is initiated.

Coastal Council projects and GAPCs

After the SHPO reviews an acceptable, detailed management summary (see guidelines below) of the archaeological survey, it will recommend to the Coastal Council that landscape-altering activities be allowed in non-site areas on the condition that the archaeological survey report is completed, turned in for review, and revised as needed. The SHPO prefers to decide on the eligibility of potential Geographic Areas of Particular Concern after reviewing a draft of the final survey report.

The Coastal Council will consider the special management of projects in areas designated as GAPCs and in the coastal zone by issuing permits for projects in GAPCs and by reviewing and certifying permits for projects in the coastal zone. A Memoranda of Agreement between the Coastal Council and those state agencies having authority over GAPCs will coordinate the activity associated with the certification process.

Treatment of archaeological properties

When the environmental review process finds that the project will have an adverse effect, it initiates a consultation between the parties involved. The goal of the

consultation is to develop one of the courses of action listed below to make the undertaking less harmful to resources.

Avoidance If project plans can be altered to avoid eligible sites, the finding "adverse effect" may become either "no effect" or "no adverse effect," depending upon the circumstances.

Protection/ Stabilization If a project can use greenspacing to protect an eligible site, the finding will become "no adverse effect." A finding of "no adverse effect" can also be reached if the historic property is made an explicit part of a "transfer, lease or sale" where "adequate restrictions or conditions are included to ensure preservation of the property's significant historic features" (36 CFR 800.9(c)). The SHPO will also consider proposals to obtain a finding of "no adverse effect" through the burial of a site and its stabilization beneath a protective cap of sterile fill. A signed Memorandum of Agreement formalizes agreements of this kind.

Data recovery If an agreement to avoid or protect and stabilize adversely affected properties cannot be reached, it is possible for an effect to be considered not adverse if the potential research value of the site is "substantially preserved through the conduct of appropriate research, and such research is conducted in accordance with applicable professional standards and guidelines" (36 CFR 800.9(c)). A finding of "no adverse effect" may be reached only if the SHPO approves a detailed data recovery plan and all parties sign a formal Memorandum of Agreement.

Summary

Projects submitted for SHPO review will be subject to the following procedures:

1. completion of an archaeological survey for any property with a good probability for archaeological resources;
2. review of the archaeological survey report by the SHPO to determine if the methods used and management recommendations provided are acceptable;

3. evaluation of all identified archaeological sites against the criteria for eligibility (if adequate information is not supplied in the survey report, an additional assessment effort may be required);
4. decision of effect (adverse or not adverse) or no effect based on survey results and determinations of eligibility;
5. consultation among involved agencies and individuals to determine the treatment of any eligible property that will be affected by the undertaking (resulting in a signed Memorandum of Agreement).

If significant sites are discovered during the survey, the SHPO will work with the agencies involved to decide on the best way to manage those resources. Minimizing the impact to, avoiding, or greenspacing these properties are the preferred alternatives. If a site with a high potential for research cannot be avoided, data recovery will mitigate the adverse effect. The SHPO will review and comment on the data recovery plan usually within 30 days of receipt. Data recovery should adhere to the guidelines given below. An official agreement will be reached with the agencies involved, and a signed Memorandum of Agreement will serve as a guide for treatment of the historic properties.

Please note

Survey or data recovery methods that do not meet the minimum standards described below may result in additional project costs and delays.

Standards for archaeological survey and data recovery

The following standards are offered as a baseline for archaeological survey and data recovery. They have demonstrated utility in South Carolina because they reflect the nature of the state's archaeological resources and environments. The SHPO presents these standards to guide field archaeologists, agency personnel, and the contracting agent (as appropriate), and it uses them to ensure the comparability of research results and to evaluate research reports. It should be noted that archaeologists can, and sometimes should, deviate from the standards. When alternative field methods are proposed, however, the archaeologists must justify their selection.

These standards do not supersede the guidance provided by the following references: Advisory Council on Historic Preservation 1980, *Treatment of Archaeological Properties: A Handbook*; Department of the Interior 1983, *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. Refer to these publications and the South Carolina standards when you write Requests for Proposals, Scopes of Work, and Data Recovery Plans.

Research design

As a first step in a cultural resource project, the principal investigator will develop a research design. The research design should be project specific, should be tied to the project area, and should include a list of pertinent questions, set up, perhaps, as a series of hypotheses. "Canned" research designs that are not tied to the project area are inadequate. The field methods, laboratory analysis, interpretation, and results should be tied firmly to the research design, and the report should answer the questions and/or test the hypotheses. Research designs are developed not only to guide data recovery projects but also to inform every phase of field investigation. The kind of questions and hypotheses addressed, of course, will depend on the type and scope of the investigation.

Documentary research

To help locate possible site areas and to refine the research design, preliminary historical research should be undertaken before the field survey begins. If historic sites are found during fieldwork, however, additional site specific research may be required to help assess the site's eligibility for the NRHP.

Site records

Before entering the field, investigators will check the master site files at SCIAA to see if archaeological sites have been recorded in the project area AND in the general vicinity; they will examine master topographic maps at the SHPO to locate any NRHP buildings, districts, structures, sites, or objects in the area; they will see if archaeological investigations have been conducted by consulting the bibliography of archaeological reports compiled by SCIAA staff with the help of a grant from the Department of Archives and History; and they will consult SHPO survey staff to obtain the results of any structures survey that has been completed.

Historical records

Since data on historic patterns of landuse contribute to the understanding of processes affecting both prehistoric and historic sites, research into historical records must be considered an integral part of any project. Such an effort can also help pinpoint known and potential areas of prehistoric and historic landuse. Investigators should locate relevant historic maps, plats, deeds, aerial photographs, soils maps, census records, and oral histories and compile a preliminary list of primary and secondary historic resources.

Usually, data recovery projects document more historic sources than survey reports. Nonetheless, survey reports are expected to document the investigator's examination of pertinent modern and historical maps, regional secondary histories, and preliminary census data.

The historical archaeologist should consider documentary research as an integral part of data recovery, not simply as ancillary to fieldwork. Failure to fully integrate

documentary research into a study may lead to requests for more information and project delays. SHPO historians will have an opportunity to review the historical sections of all reports. They will examine the quality and accuracy of the historical research and will assess the qualifications of the researcher. It is recommended, therefore, that the principal investigator allocate to historical research a significant proportion of project resources, as deemed appropriate.

Field methods: survey

Two types of archaeological surveys are recognized: reconnaissance and intensive (see the Secretary of the Interiors Guidelines and Standards at FEDERAL REGISTER, Part IV 48(2): 44716-44740).

Reconnaissance survey: A reconnaissance survey is usually carried out either during a project's planning phase or during an Environmental Assessment to characterize the potential for cultural resources in several alternate project locations. It may also be an acceptable approach when the area affected by an undertaking is large (see the Advisory Council's *Identification of Historic Properties*, 1988).

In conducting a reconnaissance survey, it is common to use a representative sampling scheme that will generate supportable predictions about the number and type of resources in the various areas. The sampling methods used will depend on the research design.

Unlike an intensive survey, which results in the identification of all the cultural resources likely to be affected by a project, a reconnaissance survey results in predictive statements only. Thus, when the location of project is established, an intensive survey is appropriate.

Intensive survey: An intensive survey has two goals: the identification of all archaeological resources within a project area and the evaluation of those resources against the criteria for inclusion in the NRHP.

It is recognized that many survey projects are not well suited to the examination of topical questions. Often, the

goals of an intensive survey will be limited to the simple identification of the archaeological resources in a given area. Investigators must, however, always firmly link the field methods they use to an explicit research design. And when an intensive survey is suited to topical research, it is both the professional and legal obligation of the principal investigator to pursue such an investigation.

The report must clearly define terms like "site," "isolated find," "site boundary," and "nonsite area," and those terms must be used consistently for subsequent methods and evaluations.

Identification

This discussion focuses on methods appropriate to an intensive survey.

Site potential

Classification: By examining the project area, topographic quad sheets, and other pertinent resources, researchers will be able to stratify the project lands into areas that are more or less likely to contain archaeological resources. If they can fully define and document their terms through historical and field research, researchers may classify the land into areas of high, medium, and low potential; they should take representative photographs of each class. Until the classifications are verified through field research, the intensity of archaeological investigation should REMAIN HIGH throughout ALL classes (except for areas that have a slope of 15 percent or more, for tidal areas, and for areas under standing water). If a particular class (e.g. an area of medium or low potential) consistently lacks cultural remains, however, alternative methods of investigation may be adopted. Areas of low probability must be sampled to ensure that at least 10 percent of the land in that classification is included in the survey. To verify the predictions, a pedestrian survey of ALL project land, along with occasional excavations of judicious subsurface tests, must be made, even in highly disturbed areas. A researcher who has a question about field methods should PLEASE contact the SHPO office.

Unsurveyed areas: If a portion of a project area is not

surveyed, the report on fieldwork must include a documented justification of the omission. Documentation can include recent aerial photographs or maps showing severe disturbance (e.g. construction) or the results of field observation. Because of errors at the unit level in soil classification and the degree to which fluctuations of sea level influence drainage patterns, archaeologists may NOT omit parcels from an archaeological survey simply because the parcel is associated with an area that a US Department of Agriculture Soil Conservation Service survey map identifies as poorly drained. Instead, project surveyors should confirm the data shown on maps by systematically observing the local terrain and considering the effect a dynamic sea level has on soil drainage patterns.

Shovel testing

Shovel tests (or auger tests if more appropriate) must be 30x30 cm or larger; they must be screened; and they should be excavated to sterile subsoil.

Intervals: The survey should rely principally on systematically placing discovery transects no more than 30 meters apart and employing shovel tests at 30 meter intervals (or English equivalent). When appropriate, investigators may wish to expand the shovel test interval not to exceed 60 meters, and the investigators must fully justify the shift in methodology by referring to specific features of the terrain or landuse history. Alternatively, if documentation indicates the probable presence of a site, the interval between units should be no more than 20 meters. Even smaller intervals will be required to identify some sites—plantation slave quarter structures, for example, will most likely be identified by using subsurface test intervals of about ten meters (25 ft).

It is recognized that rigid adherence to systematic sampling at fixed intervals may fail to yield optimal survey results—the fixed intervals may fall between regularly spaced cultural features, and they may not uncover sites that would have been located using a judgmental technique. A combination of systematic and intuitive shovel testing may be the most efficient method for site recognition and assessment.

Forgoing shovel tests: A principal investigator who forgoes

shovel tests must give a reason for the decision, must specify the circumstances influencing the decision, and must present an alternative discovery strategy. Excellent surface visibility alone is not grounds for suspending shovel testing. Some mechanism for mechanically bringing artifacts to the surface, such as rodent burrowing or tree falls, must be invoked.

Plowed fields: Plowed fields are not automatically exempt from shovel testing, and if the tests are not made, the investigator must justify the decision with a compelling argument. Plowed fields must always be shovel tested under the following conditions:

1. When visibility is poor. Despite the assumption that visibility is always excellent in plowed fields, this is not always so. Visibility may be poor if the fields are fallow, if they've not been turned recently, or if it has not rained recently.
2. When the field is in a dynamic depositional environment. For example, it may be necessary to shovel test a plowed field that is at the foot of a slope or adjacent to an aggrading stream, creek, or river.
3. When artifacts are observed on the surface, regardless of their density. Shovel tests should be excavated to test for the integrity of the source (i.e. the midden, buried surface, etc.) except when the observed artifacts can be linked to some contemporary activity (e.g. agriculture, hunting, beer drinking).

If there is any question about testing plowed fields, please contact the SHPO.

Recording data: In South Carolina, subsoil is generally reached at 50 to 100 cm below ground surface. Investigators should record relevant data on stratigraphic measures and soils in field notes, should give each shovel test a unique field designation, and should analyze and catalog recovered materials by separate provenience.

Deep testing

If research suggests the presence of deeply buried deposits, field methods must be developed to establish their existence. These methods can include backhoe trenching, bucket auger or geologic core sampling, or remote sensing techniques.

Sites Archaeological sites are commonly held to be the locations of past behaviors and are recognized as a concentrated distribution of material remains, or artifacts. A "nonsite" (or "landscape") approach to archaeological survey based on an acceptable research design is preferred, but to manage information, a consistent mechanism must be developed to convert artifact concentrations to traditional site designations. The operational definition in the survey report will give the number of artifacts or consecutive positive shovel tests that are needed to identify a site. When those numbers are reached and the site is identified, a site assessment must be conducted.

Before the project is approved, discovered and revisited archaeological sites must be recorded on South Carolina archaeological site forms (Site Inventory Record 68-1, Rev. 85) and reported to SCIAA. A copy of this form is included with these guidelines. Photocopies of USGS topographic maps and county highway maps showing site locations should accompany these site forms. Updated site forms must be submitted when sites are revisited. Typed rather than handwritten entries on SCIAA site forms are strongly recommended. Facsimiles of site forms will not be accepted.

Structures A structure that is at least forty years old will be defined as a site and recorded in the field on a SHPO Statewide Survey Site Form. An example of this form is included with these guidelines, and the SHPO can supply a comprehensive survey manual for a nominal charge. Please contact the SHPO if you have questions about completing the survey form.

To satisfy management requirements, historic buildings, landings, and fortifications may have to be recorded on both a SCIAA form and a SHPO survey form. An assessment should also be undertaken to explore the possibility that a standing structure may be part of a larger archaeological site.

Assessment Assessing the eligibility of archaeological sites for

inclusion in the NRHP is often conducted as part of an intensive survey. The essential elements of the assessment include determining both horizontal and vertical site boundaries, identifying components, and establishing the site's state of preservation. It is recognized, however, that a definitive assessment may require field work beyond the scope of an intensive survey. When this is the case, it is usual to identify some sites as "potentially eligible" and then to assess them fully by site testing. The methods discussed below and under Site Testing are offered as standards for conducting the assessment.

Mapping

Sites must be accurately located on project maps and USGS topographic maps, and a site map indicating the location of the site relative to the environmental, topographic, and cultural features of the surrounding landscape must be produced and included in the survey report. It may be unnecessary to conduct a transit survey during the field survey, but that decision should be tied to the research design.

The SHPO strongly recommends that investigators flag site boundaries in the field and that a licensed surveyor transfers this information to master project maps as quickly as possible. The archaeological consultant must give the client both exact and explicit information on the location of archaeological sites within the boundaries of the project.

A lack of accurate data on the location of sites severely degrades the ability of archaeologists to reconstruct and evaluate prehistoric and historic settlement systems. This is a serious problem that affects the management of archaeological resources statewide. Researchers are urged to use the greatest care when locating sites on project maps and USGS maps. The SHPO suggests that archaeologists consider using the Global Positioning System (GPS) to help identify the position of a site on the landscape. GPS technology is impressive and is rapidly becoming both affordable and practical. This information could become a source of data for the statewide Geographic

Information System (GIS) now being developed by various state agencies. A time is envisioned when this level of accuracy will be required before a project may proceed.

Surface collection Sometimes it may be appropriate to conduct a surface collection of identified sites. If a complete collection is impractical, a systematic scheme to sample the site should be considered. While a surface collection may help to determine horizontal site boundaries, it will not, under any circumstances, be considered adequate for an assessment of a site. Investigation of subsurface integrity must be conducted as well.

Shovel testing When a site is located, its vertical and horizontal boundaries must be delineated through subsurface testing—surface scatters and topography alone will NOT suffice. Shovel testing may be a useful technique for such an effort. Site boundaries must be well marked in the field and on the project maps. When tracing the extent of an artifact concentration, it is useful to use the first positive test as a reference and then excavate shovel tests at systematic distances in the cardinal directions—a 5 to 10 meter interval is recommended. The test pattern used—grid, radial, or cruciform—will depend on site- and project-specific concerns. When a shovel test is positive, the unit should be flagged. When the test is negative, the area between it and the last positive unit should be tested to determine the limits of cultural materials.

Formal excavation units Integrity and clarity are important factors in site evaluations and must be documented. Formal units should be excavated to explore the potential for buried surfaces, midden, and features.

Unit size: Conditions at the site and the time allotted for the survey mandate the size of these tests; they could range from 50 x 50 cm tests through larger tests. The placement of the units tested should be tied to the results of the shovel testing and, if applicable, to surface collection.

Vertical control: Formal units should be excavated by natural strata. It may be advantageous to initiate excavation using arbitrary levels because of the research design, the thickness of the natural soil zones, or for other reasons—plowzone, for example, may be excavated as a single vertical level, regardless of thickness. The interface between plowzone and nonplowed soils is often excavated as a separate level. The range of possibilities is wide, and the SHPO requires investigators to clearly describe and consistently follow the method(s) they choose.

Screening: All excavated soil must be screened through hardware cloth with no greater than 1/4 inch mesh. Recovery rates for all classes of artifacts, including faunal material, increase greatly as screen size decreases. Investigators are, therefore, encouraged to estimate relative recovery rates by systematically using finer mesh to sample soils. Although there has been much debate about the comparative benefits of dry screening, water screening, and mechanical screening, the choice seems to depend on research design, specific factors at each site, and personal preference.

Disposition of artifacts: Artifacts must be bagged by separate provenience (i.e. unit/level). Brick and mortar may be measured when appropriate, weighed, sampled by special provenience, and discarded in the field. Left valves of shell must be sampled systematically and collected for analysis, as should any other special faunal samples needed to address the research design. The remainder of the shell can be weighed and discarded.

Features: If cultural features are identified during the excavation of formal units, they must be mapped and bisected to reveal a representative profile. Feature soils must be systematically sampled and screened through a finer-than-1/4 inch mesh and must be systematically sampled for special analysis and/or flotation as well. These standards apply to all levels of archaeological investigation (not just to "data recovery").

Records: Above- and below-ground features and subsurface tests must be mapped; above-ground features must

be photographed; appropriate notes and/or forms should be maintained; a Munsell chart should be used to guide the designation of soil hues; the USDA soil texture classifications should be used to characterize texture; and representative profiles of all formal excavation units must be recorded.

Eligibility The results of the assessment are to be applied against the criteria of eligibility for the NRHP listed at 36 CFR 60.4 (enumerated above). It is a guiding principle of the Advisory Council, the SHPO, and the professional community, that "archaeological properties are important wholly or in part because they may contribute to an understanding of the past" (*Consulting about Archaeology Under Section 106*, Advisory Council of Historic Preservation, 1990; 36 CFR 60.4 Criteria D). Researchers are responsible for evaluating the specific research potential of all identified historic properties.

The SHPO is pursuing the development of research contexts for South Carolina. Dr. Michael Trinkley has developed a Woodland period context with an Archives and History grant (Trinkley 1990). The Council of South Carolina Professional Archaeologists (COSCOPA) and SCIAA have received a grant to hold symposia that will produce Archaic and Historic period contexts. The lack of completed contexts for all possibilities, however, does not absolve the investigator from the responsibility of determining the research potential of all identified sites. Project archaeologists are encouraged to solicit the comments of all potentially interested individuals or institutions, including SCIAA and SHPO, concerning the potential contribution of a site to research issues.

It is acknowledged that the physical state of archaeological resources partly determines their research potential. Any responsible determination of eligibility, therefore, must consider properties of the archaeological record like integrity. Since no universally applicable standard or threshold exists against which to judge all sites for integrity or any other property of the archaeologi-

cal record, however, the specific type of site must be considered when those properties are being evaluated. A Paleoindian site, for example, is likely to be eligible despite a physical state that would be unacceptable for an eligible Woodland site.

Field methods: site testing

Under certain circumstances it will be impossible to use the results of an intensive survey to make definitive assessments of the eligibility of some sites. The intensive survey identifies these sites as "potentially eligible" for inclusion in the National Register and additional site testing is usually recommended. The need for additional testing may be recognized by the investigating archaeologist, the federal official, or the SHPO project reviewer.

If potentially eligible sites can be avoided through project redesign, it may be desirable to treat them as eligible resources in lieu of more testing. When avoidance is not possible, a definitive assessment of eligibility must be made before the investigation into the effects of the project can proceed.

The burden placed on an investigator to consider research is especially heavy during site testing. Ideally the principle investigator will consider all research topics potentially addressed by a site of the type being tested and will specify the information required to determine if the site is truly an appropriate resource for each topic.

The testing methods employed can and should include those discussed above for the assessment of sites during the intensive survey: mapping, surface collection, systematic shovel testing, and the excavation of formal units. If, however, these methods failed to provide the information needed during an intensive survey, an additional effort is clearly called for. Often this can be done by intensifying the same techniques. For example, if shovel tests excavated in a cruciform pattern during the intensive survey were inconclusive regarding the subsurface distribution of artifacts or surfaces, then shovel tests excavated in a full grid pattern may be necessary during site testing.

Similarly, if the results from a few 50 x 50 cm formal units were equivocal regarding buried surfaces, features, or the stratification of components, it may be appropriate to excavate larger formal units during the site testing.

When a potentially eligible site is being tested, the archaeologist should remember to explore enough area to make a definitive assessment— archaeologists, even when they are evaluating sites slated for destruction, are often amazed at how little of the site area is actually examined. Although a cookbook approach to site assessment or data recovery is not advocated here, the investigating archaeologist is encouraged to determine what percentage of the site she or he is uncovering. The amount of area uncovered must be tied to the specific type of site and the research design.

The research design will dictate the method used to sample features identified during testing. All features identified must, at least, be bisected to reveal a profile. If features are completely excavated during testing, the feature soils must be systematically sampled for special processing.

The research design will also specify the analyses to be undertaken as part of an assessment effort. To fully evaluate the research potential of the site being tested, it may be necessary to collect and analyze special samples. It may, for example, be necessary to collect and process flotation samples to assess the potential of the site to address subsistence issues.

Site testing MUST result in definitive determinations of eligibility (see above the section on Eligibility under Assessment).

Field methods: data recovery

The field methods appropriate to a data recovery will be specified in a Data Recovery Plan that is approved by all involved parties. The following principles guide the SHPO review of data recovery plans (see also *Consulting About Archaeology Under Section 106*, Advisory Council 1990):

1. The specific research context in which the site is eligible must be clearly articulated.
2. Prior field work must be adequate to demonstrate that the site is an appropriate resource for the prescribed research.
3. The methods of excavation and analysis must be specified and must be appropriate to the investigation proposed.
4. Adequate provisions must be included for reporting and for the curation of recovered materials and notes.

The greatest flexibility is required in the formulation of data recovery plans, and researchers are encouraged to consider using creative and state-of-the-art methods, including representative sampling schemes, mechanical machinery, remote sensing techniques, and special analyses. The highest professional standards must apply to the methods employed, and the specifics of field and laboratory methods must be enumerated in the approved data recovery plan. The SHPO expects explicit justification of the methods selected.

Laboratory methods

Classification

Classification schemes must be referenced, and identified photographs of at least a representative sample of the artifacts must be included in the final report. Photographs and /or other illustrations are necessary because scholars often disagree on typologies. Individuals involved in the analysis of artifacts must have access to a comparative collection of specimens derived from the general area of the project. In addition, the SHPO highly recommends that all investigators consult with regional experts on the subject of artifact taxonomy (particularly prehistoric ceramics). If the SHPO sees evidence of insufficient care in the analysis of artifacts, it will request more information. Artifact analysis should be tied firmly to the research design and should be more than simply a catalog list.

Conservation

All artifacts must be cleaned, stabilized, and accessioned.

Artifacts should be stored in a safe environment before, during, and after processing. Careful field recovery techniques are wasted if subsequent laboratory, conservation, and curation standards are low. Curational facilities such as the Charleston Museum and SCIAA already have procedural guidelines for curation. The final rule 36 CFR Part 79 is available, "Curation of Federally-Owned and Administered Archaeological Collections" in the Federal Register, 12 September 1990, and offers clear standards as well. The selection of the curational facility should be made before the laboratory analysis is complete and should be identified in the report. The procedures of the selected curational facility must be followed and should be described in the laboratory methods section of the report. The accession numbers of the artifacts, if known, should be reported as well. If a particular item or type of artifact is not conserved, the report should include a justification of that decision. Conservation of a sample of materials by major provenience, such as sampling wrought nails, is sensible.

Professional consultation is available on stabilization and conservation. You can contact the South Carolina State Museum; it has a Statewide Services program, and its conservation staff offers advice to cultural institutions, including state agencies. You can also contact SCIAA if you have questions. In addition, numerous other museums, private contractors, and foundations have expertise in conservation techniques. It is required that CONSERVATION BECOME THE RULE, NOT THE EXCEPTION. ∎

Reporting results

A brief summary of requirements for survey and data recovery reports appears below. Several in-depth treatments of proper reporting are available and should be consulted as necessary (cf. Secretary of the Interior's Standards and Guidelines, 48 FR 44734-44737; McGimsey and Davis 1977; Bense et al. 1986) For matters of style refer to the Style Guide for AMERICAN ANTIQUITY (Society for American Archaeology 1983).

It is not necessary that all reports follow the same format. Data can be presented and integrated in diverse ways. What is necessary, however, is a clear and concise presentation. Bear in mind that the results of research are used by others and should constitute a usable contribution to the body of knowledge regarding the archaeology of South Carolina. For these reasons it is important that all reports are able to "stand alone" as research documents, and that the assumptions and biases affecting the conduct and results of the reported work are clearly stated.

Two copies of an initial DRAFT of each report will be required for review. At least three copies of the FINAL report will be required to give the SHPO one review copy and one clean copy and SCIAA one clean copy. To ensure that the SHPO receives the documents, it is strongly recommended that archaeologists have a clause written into contracts stating that two copies of the draft and three copies of the final report will be provided BY THE ARCHAEOLOGIST to the SHPO.

Besides the technical report, archaeologists are encouraged to prepare a brief public-oriented publication based on their work. Publications of this kind will become part of the standard requirements in Memoranda of Agreements in addition to professional reports.

Management summaries

Management summaries were initially developed as a tool to ensure that field methods followed the initial scope of

work and/or research proposal. Because of the vast increase in development in South Carolina, especially on our coast, many developers are now having to comply with various cultural resource regulations. Much of their funding is dependent upon phased bank loans. As a result, the SHPO will accept initial management summaries as a management tool for projects regulated by Coastal Council. Final reports will still be required. Management summaries must contain the following details:

1. The location of the project and a discussion of why it was undertaken.
2. Fieldwork personnel and dates when work was undertaken and completed.
3. Methods used and drawings of field maps, representative profiles, and important features (photocopied field notes will do if legible).
4. Detailed discussion of preliminary eligibility assessments.
5. A project development map with the precise locations of these sites. This is required for both the SHPO and clients. (Site locations should already have been marked in the field.)

These summaries DO NOT negate the need for a final report. Consulting archaeologists should make this clear to all clients. The SHPO will recommend to a regulatory agency such as SCCC that landscape-altering activities in areas without significant or potentially eligible sites be allowed. The permits and/or certifications will be conditioned to mandate continued protection of eligible and potentially eligible sites and development of a Memorandum of Agreement (MOA) with the SHPO. In all cases a final report will be necessary.

In the case of federally-regulated projects, the SHPO office is generally asked to concur with agency recommendations. Once the SHPO concurs, the agency has satisfied the requirement for consultation with the SHPO. For this reason, the SHPO will review only complete reports for federally-regulated projects; it will NOT accept management summaries.

Survey reports

Survey reports will range from a few pages to multiple volumes, depending upon the particular project. In all cases, the document should answer the following questions:

1. Why was the investigation undertaken? For whom? If a project or permit number is available, please provide it.
2. Who was involved in the project?
3. When did the fieldwork, laboratory analysis, and report writing take place? Who was involved in each phase?
4. Where is the project area? (Include USGS 7.5' topo location.)
5. What was the research design? (What previous work has been done in the area? What did your review of the literature uncover?)
6. What methods were used? Why were they selected?
7. Was the project area stratified based on the probability of encountering archaeological sites? How were the various levels of probability determined, and how were the different areas defined? How did the field methods vary among areas of probability? What proportions of the total project area fell into the different classes of probability? Has a map clearly indicating the various areas of probability been included in the report?
8. Where were cultural materials found? Not found? (If marked graves are found, record general information and try to find oldest and most recent graves.) Site assessments are required if features and/or artifacts are found. Include cultural overviews if materials are found. If no artifacts are discovered, leave the Paleoindian through Historic to a short, simple table.
9. What were the laboratory methods (includes conservation)?
10. What are the curation plans?
11. Have the survey area and artifacts been documented with representative photographs?

12. Have illustrations of potentially significant and significant sites been included? Have illustrations (photos or measured drawings) been included of any above-ground structures or buildings assessed as part of the project, even if not significant?
13. Have significance evaluations that are based on the resource's potential contribution to the theoretical and substantive knowledge of the discipline (Butler 1987) been included? Could you write a formal National Register nomination based on your presentation? (The SHPO will recommend that clients consider nomination of greenspaced eligible sites. All archaeologists are strongly urged to nominate eligible sites to the Register.)
14. Is a summary of site data presented in a management table?
15. Has the SHPO been given a map of site locations on a USGS 7.5' quadrangle? Are there illustrations of the locations of any sites that were previously located in the general vicinity of the project area and discussed in the text?

Site testing and data recovery reports

Testing and data recovery reports should contain the above information and the following:

1. A review of literature about the project area and about the major research topic(s) of the region.
2. A demonstration that both primary and secondary historic sources were examined and incorporated into the report. For example, have the various pertinent census materials been reviewed? Please do not simply cite a previous survey report for this section. Each document should be able to stand alone.
3. Detailed documentation of all excavation units, stratigraphy, and features must be included. Major features should be illustrated.

Criteria for report evaluation

The following list has been adapted from the Maryland

state guidelines. It is a criteria of report evaluation that authors may use as a guide to editing their report. The SHPO archaeologists use this as a checklist.

1. Is the research design clearly related to the project area? to the methods used? to the interpretations?
2. Are the techniques and methods used fully described? Have terms such as "site" and "nonsite area" been defined?
3. Are the methods appropriate for the project requirements and the level of investigation?
4. Were appropriate specialists and references consulted?
5. Have SCIAA site forms been completed?
6. Has environmental data been integrated into the report? Are possible relationships between these data and sites clear?
7. Has historical data been integrated? Does the amount of research suffice for the level of effort? Are both primary and secondary sources used?
8. Does the report clearly describe and indicate previous investigations in the project area and its environs?
9. Is the relationship between previous work and the present methods and interpretations clear?
10. Do the methods fit with current landuse, topography, and past history of the project area?
11. Are all sites, features, and the general landscape clearly and adequately described?
12. Are artifact types referenced or defined? Do they seem correct and grounded in knowledge of the region? Are summary tables provided and do they include frequency subtotals, totals, and percentages? Does the math balance? Are representative artifacts illustrated?
13. Has the appropriate level or measure of statistical analysis been performed on the data (e.g. minimum vessel counts, economic scaling, lithic measurements)?
14. Have the results of artifact analysis been incorporated into the interpretation? Have density maps been included? If not, are they needed?
15. Are the illustrations adequate and properly referenced?

16. Are artifacts, features, and sites presented, correlated, and interpreted in their proper archaeological contexts?
17. How are significance evaluations made? Are they complete and well-documented? Are they based on research design, interpretation, archaeological context, and results? How is redundancy handled?
18. Are potential impacts discussed for each site? Are past impacts fully described?
19. Based on the predicted impact, are recommendations appropriate?
20. Based on site significance, are recommendations appropriate?
21. Have the recommendations been based on cost-effectiveness? Is recommended future work based on considerations of research, management, and cost? ∎

Personnel qualifications

At the onset of a project, archaeologists are strongly urged to contact the SHPO. It is important that the SHPO know where you are working, what you are doing, and why. Please also provide a list of project personnel. Archaeologists conducting compliance projects that encompass a survey of architectural properties should obtain the services of a qualified architectural historian to identify, describe, and assess such properties. In addition, archival/historical research should be conducted by a QUALIFIED individual (not just a novice technician with time on his/her hands). The minimum education and experience required to perform identification, evaluation, registration, and treatment activities are defined by the Secretary of the Interior (48 FR 44738-44739) as found below:

Archaeology

The minimum professional qualifications in archaeology are a graduate degree in archaeology, anthropology, or closely related field plus:

1. At least one year of full-time professional experience or equivalent specialized training in archaeological management;
2. At least four months of supervised field and analytic experience in general North American archaeology; and
3. Demonstrated ability to carry research to completion.

Besides these minimum qualifications, it is expected that professionals have at least one year experience, full-time at a supervisory level, in the study of related resources (i.e. historic and/or prehistoric).

Architectural history

The minimum professional qualifications in architectural history are a graduate degree in architectural history, art history, historic preservation, or closely related field with coursework in American architectural history; or a B.A. in

architectural history, art history, historic preservation, or closely related field plus one of the following:

1. At least two years of full-time experience in research, writing, or teaching in American architectural history or restoration with an academic institution, historical organization, or agency, museum, or other professional institution; or
2. Substantial contribution through research and publication to the body of scholarly knowledge in the field of American architectural history.

History

The minimum professional qualifications in history are a graduate degree in history or closely related field; or a bachelor's degree in history or closely related field plus one of the following:

1. At least two years of full-time experience in research, writing, teaching, interpretation, or other demonstrable professional activity with an academic institution, historic organization or agency, museum, or other professional institution; or
2. Substantial contribution through research and publication to the body of scholarly knowledge in the field of history.

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