Understanding Wetlands And The 404 Process

by Clyde B. Johnson, SR/WA

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"Our sense of pride in the technology that enables us to make the desert bloom and bring forth year-round crops, to run roads over mountain tops, to alter a watercourse, or to build vast international airports on swampland has been shaken. This is not to say that we have not benefited from our technology, but we now know that we must balance our economic, social, and environmental goals."

ne of the greatest fears for both private developers and public agencies is the discovery of wetlands on their project. The identification of wetlands and the requirements for obtaining a 404 permit for those interested in depositing dredged or fill material into "waters of the United States, including wetlands" is an issue that has been the center of constant debate since the passage of the Clean Water Act of 1972.

The U.S. Army Corps of Engineers (COE) and the Environmental Protection Agency (EPA) are two of the federal agencies assigned primary oversight responsibility for the nation's wetlands. Other federal agencies may have additional input through comments and recommendations which can create additional responses prior to approval or denial of a permit. The requirements for obtaining the necessary permits can be time consuming, thus creating delays in project scheduling if not properly approached. A methodical analysis of a project should include the following four steps if the potential for wetland impact exists:

1) avoidance, 2) minimization, 3) function and value determination, and 4) mitigation. The level of documentation for each step depends on the type of permit required.

In order to formulate a better understanding of wetlands, it is imperative to grasp the concepts of an *ecosystem*. This is a system composed of plants and animals that exist in an environment of physical and chemical factors so mutually inclusive that with the absence of one factor, the entire system cannot exist. Ecosystem quality and diversity has become a prime factor that dictates wetland replacement requirements and may trigger a greater than one-to-one (acre) replacement strategy.

The reduction in our nation's wetlands has been estimated at 221 million acres for the 48 contiguous states. One interagency report indicated that "one third of the original wetlands has been converted to marinas, vacation homes and lots, airports, industrial plants, parking lots, highways, and other uses. Alternate locations may often have existed, but there was no state or federal requirement that they be considered."² The greatest "other use" has been conversion to farmland.

From 1950 to 1970, it was estimated that the average net annual loss of wetlands was 458,000 acres, with the greatest losses occurring in the states of Florida, Georgia, South Carolina, Maryland, New Jersey, North Carolina and Delaware.

The diverse benefits of wetlands

are now recognized, and what many people once considered wasteland has proven to be a valuable natural resource. "The many benefits of wetlands include production of commercial fish and shellfish, waterfowl, and hardwoods; habitat for diverse wild plants and animals; filtration of pollutants from surface waters; and dissipation of flood waters."

In their article "The Implications of Federal Wetland Protection Programs for the Real Estate Appraisal Industry," Jaime Alvayay and John S. Baen noted that conversion of wetland to farmland was responsible for 87 percent of the loss in wetlands, urban development at 8 percent, with all other uses at 5 percent. Also, in their discussion of the valuation of wetlands, they found "Conversion of natural wetlands to development uses is an example of market failure. This market failure occurs because the developer does not include as a cost the value of the non-exclusive services produced by the natural wetland. Social cost exceeding private cost prompted the adoption of federal and state policies requiring the granting of a permit before wetland alteration can take place."4

With the above information in mind, this article will examine the history, definition(s), procedures for the 404 permit, mitigation requirements, recent legal issues and proposed legislation, and explore how to expedite the 404 process as it relates to wetlands.

THE 404 PERMIT, A HISTORY

Congress, believing that the private sector would neither consider the benefits of wetlands or actively seek other sites for development if wetlands were noted, took action to address wetlands. Recognizing the benefits derived from these highly complex ecosystems and their public trust responsibilities, Congress re-

sponded with federal regulations developed to address the problem of water quality:

1899–Rivers and Harbor Act (Section 10) prohibits the unauthorized obstruction or alteration of any navigable waters of the United States. Section 10 of this act set forth public rights and interest in the protection of the waters of the United States. The Clean Water Act of 1972 resulted from the broadened overall definition of the public interest originally established by this act.

owned lands and projects.

1980–The EPA issues regulations (40 CFR Part 230) as a final rule of the guidelines for placement of fill into waters of the United States as required by Section 404(b) of the *Clean Water Act* amendments. This regulation adopts a legal definition for wetlands

1986–The COE issues regulations (33 CFR Parts 320 through 330) as a final ruling on the requirements for 404 permitting activities.

1988-President Bush announces

One of the greatest fears for both private developers and public agencies is the discovery of wetlands on their project.

1972–The Federal Water Pollution Control Act (Clean Water Act) is passed. Section 404 of this act requires permits for the discharge of dredged or fill material in the waters of the United States.

1975–The EPA, through the COE, issues interim regulations for Section 404.

1977–Amendments to Section 404 of the Clean Water Act are enacted. This amendment increases the importance of Section 404(b)(1), requiring guidelines (regulations) to be established for the placement of fill material into waters of the United States, including wetlands. The placement of fill material into waters of the United States requires a permit to be issued by the COE. In Section 404(f) exemptions are added which define activities that do not require permits. Farming, by far the largest consumer of wetlands (87 percent), is exempted.

1977–President Carter signs Executive Order 11990–Protection of Wetlands. This order requires federal agencies to take all practicable actions to minimize destruction, loss or alteration of wetlands, and preserve and enhance the natural and beneficial values of wetlands for federally

goal of "no net loss" of wetlands. 1989–The EPA, COE, Fish and Wildlife Service, and the Soil Cons

Wildlife Service, and the Soil Conservation Service adopts the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*. This manual is intended to be used to establish the boundary of wetlands. The COE mandates the use of this manual as of March 20, 1989 to identify wetlands subject to Section 404 of the *Clean Water Act*.

1990–The EPA and the COE sign a Memorandum of Agreement concerning the determination of mitigation required to meet the 404(b)(1) guidelines of the *Clean Water Act*.

OBJECTIVES OF THE CLEAN WATER ACT

In simplistic terms, the objectives of the *Clean Water Act* is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. As indicated earlier, Section 404 prohibits the discharge of concrete, rubble, soil, fill, riprap, site grading material, backfill, dredged material, road beds or surfaces, or other such material into lakes, streams, rivers, ponds, wetlands, and other waters. Such action requires a permit pursuant to Section 404 of the *Clean Water Act*.

WHAT IS A WETLAND?

The COE has produced a pamphlet entitled *Recognizing Wetlands* which provides some non-technical information on the subject of wetland identification. Logically, some wetlands in terms of time are geological infants, while others have highly developed ecosystems that require many thousands of years to develop. The quality of wetlands being impacted as well as quality and size of replacement wetlands are questions now being considered.

As noted in *How to Expedite The 404* Process of the Clean Water Act, published by the COE, a more detailed definition is provided: "A wetland is a type of water of the United States subject to Section 404 of the Clean Water Act. Other such waters include lakes, ponds, streams (including intermittent streams), rivers, creeks, springs, territorial seas, other tidal waters, and other bodies of open water. 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. Also, wetlands are generally distinguished from other waters of the United States in that they normally support vegetation." This definition was adopted by both the EPA and the COE in 1980.5

Wetlands are described by the U.S. Department of Interior, Fish and Wildlife Service as "land where water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil on its surface."

Three basic characteristics of wetlands are considered in making a determination: 1) hydrology, 2) vegetation, and 3) soil. If you are not sure,

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and one of the following conditions exists, then additional action should be planned to make a more thorough delineation:

- Area is periodically flooded by tides, even if only by strong, winddriven, or spring tides.
- Area occurs in a floodplain or otherwise has low spots in which water stands at or above the soil surface for more than seven consecutive days during the growing season (currently under review, may be revised).
- Area has plant communities that commonly occur in areas having standing water for part of the growing season (gum swamps, cordgrass marshes, cattail marshes, bulrush and tule marshes, and sphagnum bogs).
- Area has soils that are called peats or mucks.

Note: Most wetlands lack both standing water and waterlogged soils during at least part of the growing season.

The U.S. Soil Conservation Service can provide soil classification maps that note hydric soils (potential wetlands). Also, the Fish and Wildlife Service have National Wetland Inventory maps available upon request. These maps, while not the final determining factor for wetland identification, provide a good resource tool for initial identification.

Potential wetland areas should be carefully examined, and any questions directed to the U.S. Army Corps of Engineers district office with jurisdiction over the area in question.

PROCEDURES FOR THE 404 PERMIT

Section 404 of the *Clean Water Act* authorizes the Secretary of the Army through the COE to issue or deny

permits for filling activities. The EPA and the COE are charged to develop guidelines that must be used in the Corps of Engineer's evaluation of permit applications. This program provides for the evaluation of permit applications by evaluating the effect of the proposed development on wetlands with provisions for comments from other federal agencies (Fish and Wildlife, etc.), state and local governments, citizens, and other interest groups. After analysis of the environmental impact of the project, the permit can be denied or granted with conditions proposed to minimize any adverse impacts noted.

In his article entitled "Construction and the COE Section 404 Permit Process," Dr. William R. Brown notes that a major function of the process is to address the requirements of the EPA's 404(b)(1) guidelines.⁷

404(B)(L) GUIDELINES

404(b)(1) guidelines, originally created to be used in evaluating discharges of dredged or fill material under section 404 of the Clean Water Act of 1972, were implemented by Interim Final Guidelines in September 1975. Additional guideline revisions were made by the EPA, 40 CFR Part 230, published in the Federal Register Vol. 45. No. 249, Wednesday, December 24, 1980. These revisions were made to reflect the 1977 amendments of Section 404 of the Clean Water Act, correct inadequacies perceived in the Interim Final Guidelines by clarifying explanations of unacceptable adverse impacts on aquatic ecosystems requiring additional documentation of guidelines, and finally to publish final rules. Under these revised guidelines, except as provided under subsection 404(b)(2), no permit should be granted:

 if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.



- if it causes or contributes to, after consideration of disposal site dilution and dispersion, violations of any applicable State water quality standard.
- if it will cause or contribute to significant degradation of the waters of the United States.
- unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.

routine part of the process to ensure accuracy of all data and documents. Some states provide mailing labels to the COE for adjoining property owners on their projects to expedite the permit process. Also, 404(c) provides veto power to the EPA over any COE permit determination.

Potential applicants should remember the COE operates 37 districts across the nation charged with regulatory responsibility. The district engineer should be contacted to confirm the requirements for a regional

The best policy is avoidance of any wetlands... followed by minimization of project impacts through design considerations.

Three basic steps are involved in the 404 process: 1) the pre-application process where information is obtained by the applicant about permit requirements, project viability and alternatives that would accomplish the project's purpose with less impact; 2) application, formal project review and consultation where the COE determines the significance of both individual and cumulative impacts on the environment by the project, and the probability of adverse public, state, federal opposition; and 3) a permit is issued if compliance with 404(b)(1) guidelines is noted and the proposed project is in the best interest of the public.

SECTION 404 PERMITS

There are three types of permits applicable to the 404 process. The type of permit generally depends on the amount and type of impact on the regulated areas. Perhaps the most important point to remember in the application process is to give consideration to time frame requirements for the specific permit application early in project development to avoid unnecessary delays. The best policy is avoidance of any wetlands, if possible, followed by minimization of project impacts through design considerations. Also, careful analysis of the permit application should be a

or individual permit within a particular jurisdiction. Requirements may vary due to district policy or comments from the public or private sector.

Nationwide permits: a type of general permit issued by the Department of the Army for certain specified activities nationwide. If certain conditions are met, the specified activities can take place without the need for an individual or regional permit. It addresses and makes provisions for activities where little delay or paperwork is needed (excerpts from 33 CFR COE, Federal Register, Vol. 51, No. 219, Thursday, November 13, 1986). A nationwide permit applies when less than 200 cubic yards of fill material is discharged below the plane of ordinary high water. Depending on the type of activity, construction may proceed the permit, but documentation is required. Projects approved as "Categorical Exclusion" (CEs) by federal agencies, in accordance with the Council on Environmental Quality regulations, automatically fall under a nationwide permit. Potential applicants should note the 26 types of activities covered by nationwide permits each with specific requirements regarding the project activity.

Regional permits: these permits address roads and bridge activities which are minor in nature, but which extend beyond the limits of a nationwide permit (200 cubic yards). Authorize the discharge of up to 125,000 cubic yards of dredged and/or fill material below the 100-year flood elevation covering up to 1.0 acres of vegetated wetlands within waters of the United States. All construction conducted under the authority of a regional permit must be performed within the guidelines and limitations set forth in the conditions of the permit. No work may be undertaken prior to notification that the contemplated work is within the scope of the regional permit. Other regional permits exist for other activities. Requirements can vary from jurisdiction to jurisdiction; contact the local COE district office.

Individual permits: use these permits for activities where more than 125,000 cubic yards of fill are to be deposited within the 100-year flood plain, and when more that one acre of wetland will be displaced. It typically takes six months or longer to process due to comment process and documentation requirements. Again, requirements can vary from jurisdiction to jurisdiction.

The above permits require various types of documentation and may be elevated by the Corps to a different level if applicable. The permit application must contain the following:

- Project description, usually represented by an 8 1/2 x 11-inch typical section and location map.
- Plans and profile sheet.
- Amount and area of fill to be discharged into the 100-year flood plain.
- Number of acres of wetland to be filled.
- Statements of compliance with other federal laws and regulations, if applicable.
- Names and addresses of adjoining owners, if applicable.
- Mitigation plan for wetland impact.
- Letter requesting to use specific type permit.

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MITIGATION REQUIREMENTS

Wetland mitigation has increasingly become an issue of both controversy and concern since President Bush's proposal of a "no net 1088" policy. Two important factors must be considered under this concept: 1) acreage, and 2) function. One-to-one replacement for wetland acreage may no longer meet requirements when the function of the wetland ecosystem is considered. On November 15, 1989, the EPA and the Department of the Army signed a Memorandum of Agreement (MOA) to provide clarification and general guidance regarding the level of mitigation necessary for compliance. This MOA addresses requirements for individual permits and excludes nationwide and regional permits, letters of permission and programmatic permits. The purpose of the MOA is to increase the effectiveness, reduce delays and clarify the regulations surrounding mitigation under 404 guidelines. Replacement of these highly developed ecosystems may require a significantly greater number of acres due to the function utility of the acreage required by a project. Current cost estimates for wetland mitigation indicate that \$30,000 to \$50,000 per acre is required to convert upland areas to wetlands (excluding cost of site). This figure could increase dramatically depending on basic functional equivalence needs.

Mitigation is defined by the Council on Environmental Quality in Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1508.20) which contains five factors to consider to develop justifiable measures to mitigate wetland impacts:⁸

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensation for the impact by replacing or providing substitute resources or environments.

It should be noted that the individual agency involved may place more credence on one factor over another; therefore, mitigation requirements could differ significantly when considering the identification and evaluation of the subject wetland

prior to mitigation. The MOA states, "in determining appropriate and practicable measures to offset unavoidable impacts, such measures should be appropriate to the scope and degree of those impacts and practicable in terms of cost, existing technology, and logistics in light of overall project purposes. The Corps will give full consideration to the views of the resource agencies when making this determination."

It further prescribes three methods of mitigation:

- Avoidance—allows permit issuance on the least environmental damaging practicable alternative (no permit required if avoidance of resource is accomplished).
- Minimization—requires appropriate and practicable steps to minimize the adverse impacts by project modifications and permit conditions.
- Compensatory mitigation—
 restores existing degraded wetlands or creation of man-made
 wetlands when practicable, in
 areas adjacent or contiguous to the
 discharge site. It also makes
 provisions for off-site compensatory mitigation in the same geographical areas, with consideration
 for the proximity and watershed of
 the subject discharge site.



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Wetland banking is addressed (must be approved by EPA and COE) and requires specific guidance for preservation. Under this technique, the creation of wetlands within a region or location may be allowed to compensate for the loss of wetlands. An agreement is made between the resource agencies and the applicant requesting the permit. The ratio of wetland replacement is specified as is the type of wetland (same type and functional value) and replacement areas.

RECENT LEGAL DECISIONS AND PROPOSED LEGISLATION

Today, the greatest challenge to wetland regulation and proposed changes centers on the question of inverse condemnation. Inverse condemnation is "the taking of property by an actual interference with or disturbance of property rights, without an actual entry upon the property."10 The main point to consider is that courts are seriously considering the question of "taking." In Loveladies Harbor Inc. v. United States (No. 243-83L), in question was 12.5 acres of wetlands in the Long Beach Township of Ocean County, New Jersey. The project involved a potential residential development and the COE denied a permit to fill the area. The court determined that by denying the permit, the COE had taken property worth \$2.7 million without compensation. The court determined that the property could be used only for recreation and wildlife habitat without the permit and held that the difference in value was significant enough to constitute a taking of property rights without sufficient compensation as required by the Fifth Amendment. Also, the same trial judge ruled in Florida Rock Industries v. United States that the denial of a wetlands development permit constituted a taking. These and other decisions indicate that the courts are considering that denial may seriously effect the value of a property and, to the extent that the value has been diminished, it may find that a taking has occurred. For appraisers, this creates a dilemma in that the "Appraisers who value wetlands must consider the effect of these regulations on wetland values or face the possibility of liability claims and costly litigation."11

PROPOSED LEGISLATION

H.R. 5968—The Wetlands Conservation and Management Act of 1990 established three classes of wetlands:

1. Type A—those wetlands greater than 10 acres and of critical signifi-

- cance to the long-term conservation of the ecosystem.
- 2. Type B—those wetlands that provide habitat for a significant population of wildlife or have other significant functions.
- 3. Type C—those wetlands which serve limited or minor ecological functions.

Synopsis: Jurisdiction over more significant wetlands would be expanded. No permit, mitigation and alternative site analysis would be required on Type C category. Draining and burning vegetation would be permitted for the first time. Provides for compensation to the property owner if permit is denied, provisions for wetland banking system, and programmatic permits.

H.R. 251—The Wetlands No Net Loss Act of 1991

Previously introduced in 1989. Promotes the conservation and enhancement of wetlands to offset or prevent their loss.

Synopsis: The entire Section 404 permit process would be controlled and administered by the secretary of the interior. Would take veto power away from the EPA and permit issuance from the COE.

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H.R.404—The Wetlands Protection and Regulatory Reform Act of 1991

Provides for an overall net loss policy for wetlands, and differential levels of protection for wetlands based on acreage, function, and value.

Synopsis: The act revises procedures for issuance of permits for discharge of dredged or fill material into navigable waters. Different levels of protection are assigned to wetlands based on function, acreage and value. The COE would have sole veto power. Requires a 90-day turnaround time on application with provisions to extend time frame for approval under certain criteria. Limits jurisdictional calls under certain conditions. Emphasis would be placed on the applicant's description of the purpose of the project.

ADMINISTRATION'S WETLAND PLAN

On August 9, 1991, the president announced a comprehensive plan for

addressing the wetlands issue. The proposed plan seeks to balance two important objectives: 1) the protection, restoration, and creation of wetlands, and 2) the need for sustained economic growth and development.

The administration seeks to slow and eventually stop the net loss of wetlands. A three-part plan is proposed:

- 1. Strengthen wetlands acquisition programs and other efforts to protect wetlands.
- Revise the interagency manual defining wetlands to ensure that it is workable.
- 3. Improve and streamline the current regulatory system.

Several new initiatives were presented in this proposed plan to work toward the goal of no net loss:

 Fully funding the Wetlands Reserve Program in the 1990 Farm Bill

- Initiating an administration-wide wetlands restoration and creation program on federal lands.
- Continuing to make wetlands a priority in the allocation of Land and Water Conservation Funds (LWCF).
- Continuing and expanding the existing satellite monitoring program to periodically assess national wetland trends.
- Expanding research on wetlands.
- Focusing outreach and education programs to inform the public about federal wetlands regulations.
- Revising the existing executive order on wetlands to emphasize wetlands stewardship on federal lands and the acquisition of valuable wetlands.

The plan proposes to streamline the permitting process by:

- Designating a single agency (the U.S. Army Corps of Engineers) to coordinate between the applicant and the federal government as well as be responsible for all consultations with other agencies, determining the final permit conditions.
- Providing and encouraging meetings between interested parties, and providing early consultation on the types and location of mitigation that will be required if loss occurs.
- Creating a training program for the private sector and improving the training for agency field personnel on wetland issues.
- Deeming permits approved within six months if an agency does not extend the deadline for good cause as determined by the COE.
- Requiring consulting agencies to provide site-specific information when commenting on individual permits.
- Replacing consulting agency appeals of individual permits with appeals based on resources or issues of national significance.
- Expanding the use of general permits.





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This plan provides for a limited number of major wetland categories based on function, value and scarcity or abundance of different wetlands. A technical committee will be established to define these major categories. Also, the proposed plan addresses mitigation banking, permit conditions for wetlands, and increases the state's role in the permitting process by delegating the 404 program and modifying the coverage of the program to include other activities that effect or destroy wetlands.

Proposed revisions to the Federal Manual for Identifying and Delineating Jurisdictional Wetlands, which will incorporate changes to clarify the scope and application of the this manual issued in 1989, have been forwarded to the Federal Register for publication and public comments prior to being made final.¹²

EXPEDITING THE 404 PROCESS

The information in Table 1 (pp. 16-17) was obtained from the COE and is included to provide additional information for potential applicants and interested parties. Other COE district offices may provide additional information that would assist in this process.

In Conclusion

The future status of wetlands and the 404 permit process remain unclear at the present time. Proposed legislation and changes that may result from the reauthorization of the Clean Water Act, scheduled for 1991-1992, will mandate changes in current regulations. Some proposed bills seek to narrow the scope of wetland protection. The very definition of wetlands is currently under considerable debate among federal agencies, and has the potential to dramatically effect total wetland acreage. A workable definition has yet to be determined. The results of these changes may strengthen or weaken existing laws, regulations and reporting requirements. Many players are involved in addressing wetlands, analyzing benefits, impacts and environmental concerns. Environmentalists fear a backlash by Washington lawmakers and a potential negation of federal efforts over the last 20 years to protect wetlands. Both the public and private sectors have strong interest groups seeking to influence the final product in support of their position. The existing process requires careful analysis, reporting and documentation. The process is somewhat complex; however, with sufficient knowledge and resource material, a permit can be obtained without unnecessary project delays.

Penalties for ignoring wetlands or the permit process can be severe. It is against federal law to begin work prior to obtaining permits. The property owner and developer/contractor can be held liable for any violation. Penalties for working without a permit include 1) removal of work and restoration of area, 2) a fine of up to \$50,000 per day for each violation, and 3) up to two years in prison.

Additional information or answers to technical questions can be obtained from your local U.S Army COE, District Office, Regulatory Branch.

(IRWA)

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