Chapter 3

The Regulatory Program: Clean Water Act Section 404 Permits

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The Corps' regulatory program implements Clean Water Act § 404, which regulates the discharge of dredged or fill material into the nation's waters. Through this program, the Corps is supposed to ensure that construction carried out by private parties and other governmental agencies in wetlands, streams, rivers, and coastal waters complies with the requirements of the Clean Water Act. Corps civil works projects also must comply with the requirements of § 404. This chapter describes this complex program, and identifies opportunities for improving Clean Water Act compliance.

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I. The Corps' Regulatory Program

The Corps' regulatory program implements § 404 of the Clean Water Act. Section 404 regulates the discharge of dredged or fill material into the nation's waters, and establishes requirements that must be met before the Corps can issue permits to private parties and governmental agencies for construction in wetlands, streams, rivers and other aquatic habitats. The Corps shares responsibility for managing the § 404 program with the U.S. Environmental Protection Agency (EPA).

A. Overview of Clean Water Act Section 404

Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into waters protected by the Act without a valid permit. Waters protected by the Clean Water Act include wetlands, rivers, streams, lakes, ponds, and coastal waters (collectively, "protected waters"). *See the "Waters Protected By The Clean Water Act" box for a discussion of key issues concerning protected waters.*

Section 404 applies to activities carried out by private parties and governmental agencies, including the Corps. Activities requiring § 404 permits include the filling of protected waters to allow construction of housing developments, residential subdivisions, retail establishments, hotels, marinas, and roads. *More detailed information on the types of activities covered by § 404 can be found at 33 C.F.R. §§ 323.2 and 323.3.* Corps civil works projects also must comply with the substantive and analytical requirements of § 404, although the Corps will not issue itself an actual permit. 40 C.F.R. § 230.2; 33 C.F.R. § 336.1.

The Corps must comply with two sets of Clean Water Act regulations before it can issue a § 404 permit or approve a Corps civil works project – the EPA 404(b)(1) Guidelines and the Corps' own § 404 regulations. In most cases, a § 404 permit also cannot be issued until the proposed activity has been reviewed under the National Environmental Policy Act (NEPA). *See Section III below for a detailed discussion of the Clean Water Act regulations, and Chapter 6 for a discussion of the National Environmental Policy Act.*

Other Types of Corps Permits

The Corps issues two additional types of permits that are not addressed in this Chapter. Ocean discharge permits authorize the transportation and disposal of dredged material at designated ocean disposal sites. 33 U.S.C. § 1413. Rivers and Harbors Act § 10 permits authorize the construction of structures in navigable waters such as piers, boat docks, boat ramps, breakwaters, revetment, riprap, jetties, artificial islands, pilings and aids to navigation. 33 U.S.C. § 403. Ocean dumping and § 10 permitted activities also may require a § 404 permit. If more than one permit is required, the requirements of each permit type must be satisfied. The regulations applicable to § 10 permits are found at 33 C.F.R. Part 322. The regulations applicable to ocean dumping permits are found at 33 C.F.R. Part 324. *See Chapter 6 for more on ocean dumping and § 10 permit requirements.*

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Decisions under the regulatory program are also supposed to comply with the "sequencing" and mitigation policies established by EPA and the Corps. The sequencing policy requires applicants to first avoid impacts. Impacts that cannot be avoided are to be minimized. Finally impacts that cannot be avoided or minimized must be mitigated. *See Section IV below for more on mitigation.*

The overall regulatory program is also supposed to comply with the longstanding – but unmet – national goal of "no-net-loss" of the nation's remaining wetland acres and functions. This goal was established in 1989 by the George H.W. Bush administration. The Clinton administration embraced the no-net-loss goal and for the first time articulated a net gain of wetlands goal, with the specific goal of attaining a net increase of 100,000 acres of wetlands each year by 2005. The George W. Bush administration has stated that it is committed to no net loss of wetlands, and to an eventual net gain, but it has not articulated a clear net gain goal. The no-net-loss goal is statutorily mandated for the Corps' civil works program. 33 U.S.C. § 2317(a)(1).

Dredging Requires A Permit Unless It Causes Only Incidental Fallback

In addition to requiring a permit for discharging dredged material into protected waters, § 404 requires a permit for the actual dredging, digging up, or clearing of any wetland or other protected water. A permit will be required even if the soil dredged from the protected water will be disposed of on dry land. This is because these types of activities are presumed, as a matter of law, to result in the discharge of dredged material into protected waters. This legal "presumption" can be rebutted, however, if the applicant can show that the dredging, digging, or clearing will cause only "incidental fallback" of the dredged material into the protected water.

Incidental fallback (an issue that was heavily litigated by development interests) is defined as the redeposit of small volumes of dredged material that is incidental to excavation activities. 33 C.F.R. § 323. A project will produce more than incidental fallback if more than a small amount of dredged material will wind up in an area that is not right next to the area being dredged. Mechanized activities will likely result in more than incidental fallback.

Understanding incidental fallback and the incidental fallback presumption is important because if an activity will produce only incidental fallback, a § 404 permit will **not** be required. However, if an activity produces more than incidental fallback, a § 404 permit **will** be required.

The Corps is increasingly using incidental fallback to exempt activities from permit requirements. For example, the Corps has claimed that a gravel mining operation in the Kansas River does not require a § 404 permit because the mining is producing only incidental fallback. However, the Corps has no project specific or other information to show that this is the case. In the absence of this project specific information, the incidental fallback presumption prohibits the gravel mining without a § 404 permit.

If the Corps refuses to require a permit based on incidental fallback, activists should send a Freedom of Information Act request for the evidence that proves that the specific project will cause no more than incidental fallback. Activists can also gather data independently to show that the activity will in fact redeposit far more than small amounts of material into the river or wetland.

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Waters Protected by the Clean Water Act

In January 2001, the U.S. Supreme Court issued a ruling that has spawned aggressive efforts to eliminate Clean Water Act protections – including the requirement to obtain § 404 permits – from a host of the nation's streams and wetlands. In *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*,[1] commonly referred to as SWANCC, the Supreme Court removed Clean Water Act protection from an extremely limited number of waters. By a 5-4 majority, the Court ruled that Congress did not intend the Clean Water Act to protect non-navigable, so-called "isolated," intrastate waters where jurisdiction over those waters is based solely on their use by migratory birds.

The Supreme Court did not strike down protection for all so-called "isolated" waters. Those that fall along a state, international, or tribal boundary are still covered by the Clean Water Act, as are all "navigable" waters (not just those used in commercial boating). Other factors that have long been included in policy and regulations also allow protection of "isolated" waters under the Act. These factors are: use of the water by interstate or foreign travelers for recreation, use of the water for extraction of fish or shellfish to be sold in interstate or foreign commerce, extraction of water for industrial purposes or irrigation, and use of the water by endangered species.

As a legal matter, the SWANCC ruling is extremely narrow and should apply in only rare circumstances. This has been underscored by many post-SWANCC lower court decisions. As a scientific matter, the ruling also should apply in only the rarest of circumstances. Scientists stress that very few bodies of water are actually "isolated," a term that was not defined by the Court and is not found in the Clean Water Act.

Although the SWANCC ruling is extremely narrow, it did create a new loophole in Clean Water Act coverage for the nation's beleaguered wetlands and other waters. This loophole applies to § 404 permits and to all other provisions of the Clean Water Act, including regulation of point source pollution discharges under § 402, the state Water Quality Certification program under § 401, and the oil spill liability program under § 311.

This narrow loophole was seized upon by developers, mining interests and industry-friendly officials in the George W. Bush administration to mount an unprecedented attack on the types of waters that receive protection under the Clean Water Act. In January 2003, EPA and the Corps issued a joint memorandum that directs federal regulators to withhold protection from tens of millions of acres of wetlands, streams, and other waters. The administration also launched an effort to formally change the Clean Water Act rules to dramatically reduce the waters that would be protected by the Act. While the administration was forced to abandon the formal rulemaking after an enormous public outcry, it left the destructive agency memorandum in place. This memorandum is still in effect as of the date of this publication, and the Corps is relying on the memorandum to refuse to extend Clean Water Act protections to waters that clearly fall within the scope of the Act.

You can find out about decisions not to extend protections to waters in your area by visiting your Corps district's website. Most districts are complying with a headquarters directive to post a data form for each decision not to apply Clean Water Act protections. This form gives some minimal information on the water body affected and why it was determined to fall outside the scope of the Clean Water Act. You should contact district staff if you have concerns that a particular decision appears to go beyond the narrow holding of the SWANCC decision.

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B. Management of the Regulatory Program

The Corps and EPA are both responsible for implementing the § 404 program, and they share many responsibilities including enforcement and developing regulatory policy and guidance. The Corps is responsible for the day-to-day management of the program, while EPA sets standards and is ultimately responsible for ensuring that permits and the permitting program comply with the requirements of the Clean Water Act.

EPA Responsibilities: The Corps must comply with the EPA standards, and EPA is ultimately responsible for ensuring that the permitting program, permits, and Corps projects comply with the requirements of the Clean Water Act. To this end, EPA has two key roles in connection with individual Corps permit decisions. First, EPA reviews and formally comments on individual permit applications and general permits. These comments can compel the Corps to significantly modify or deny a permit. EPA's review to ensure compliance with § 404 takes place at the same time EPA reviews a permit or project for compliance with NEPA.

Second, EPA can stop the Corps from issuing a permit and can stop a Corps civil works project if EPA finds that the project "will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas." CWA § 404(c), 33 U.S.C. § 1344(c). However, these Clean Water Act "vetoes" are extremely rare, and there is no way to force EPA to issue one. This is because the veto authority is discretionary with the agency, which means that an individual or organization cannot sue EPA to compel a veto. Significant groundwork must be laid with EPA before it will consider a veto, which is ultimately a very political decision. Only 11 vetoes have ever been issued by EPA.[2] *See Section III below for more on the veto process.*

EPA also: (1) sets the standards used to determine which waters are subject to § 404; (2) sets the standards used to evaluate permit applications and projects – these standards are contained in the 404(b)(1) Guidelines and other policy documents; (3) identifies activities that are exempt from permitting requirements; (5) oversees state and tribal actions; and (6) shares enforcement responsibilities with the Corps.

Corps Responsibilities: The Corps develops regulatory and policy guidance in collaboration with EPA, shares enforcement responsibility with EPA, and promulgates general permits. The Corps' regulations cannot conflict with EPA's regulations, and the Corps must comply with both sets of regulations when issuing a § 404 permit.

The Corps also is responsible for the day-to-day management of the § 404 program, where it: (1) determines whether particular waters are protected under § 404 by making jurisdictional determinations; (2) determines whether particular activities are covered by the permitting requirements; (3) evaluates applications under general permits; (4)

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evaluates individual permit applications, works with applicants to eliminate, reduce and mitigate adverse impacts to protected waters, and issues (either with or without conditions) and denies individual permits; and (5) ensures that any conditions imposed by the state are included in Corps permits. Most of the authority for administering the regulatory program has been delegated to the Corps districts. *The types of permits issued by the Corps, the permit review process, and mitigation for permitted impacts are discussed in Sections II, III, and IV below.*

The Corps has established a one-sided administrative appeals process for permit decisions. This appeals process is available only to permit applicants, owners of the property at issue, or lease, easement or option holders on the property at issue. The applicant or one of these other parties can file an appeal if an individual permit is denied, if the applicant does not agree with the conditions of the permit, or if the applicant does not agree with a jurisdictional determination (a determination that a wetland or water body is subject to the regulatory requirements of § 404). The appeal results in the decision being reviewed by the next higher level within the Corps, which typically means that the division engineer will review the decision of a district engineer. 33 C.F.R. Part 331.

An administrative appeal cannot be filed by individuals or organizations that oppose issuance of a Corps permit or a decision that no permit is required because the water body is not jurisdictional. Instead, any such challenges must be filed in federal court.

State Assumption and Participation: The Clean Water Act also allows states to "assume" or take over all or part of the § 404 program for all but large navigable water bodies in their states. Programs in these states must comply with the same framework as the federal § 404 program, including providing public notice and an opportunity for the public to comment on permit applications. EPA must receive copies of all permit applications, and retains the ability to file objections and veto permits. To date, only New Jersey and Michigan have assumed the § 404 program. However, a number of states have developed state "programmatic general permits" that cover the permitting of activities with wetland impacts of three acres or less. Wetland protection statutes for a number of states can be found at the Association of State Wetland Manager's website at www.aswm.org/swp/states.htm.

It is important to know that states and tribes can play a key role in § 404 decisions even if they have not assumed all or part of the § 404 program. Through the Water Quality Certification process established by § 401 of the Clean Water Act, states and tribes can prohibit or put significant conditions on § 404 permits and Corps civil works projects. *See Section III below and Chapters 5 and 6 for a more detailed description of the roles of the states and the requirements of Clean Water Act § 401.*

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C. Environmental Impacts of the Regulatory Program

Strict compliance with the laws, regulations, and polices that govern the § 404 program would provide strong protections for the nation's rivers, streams, and wetlands. Regrettably, however, these regulations have not been strictly applied. Instead, the Corps has focused on expediting permit approvals, and has fundamentally ignored the § 404 requirements for its own civil works projects. The environmental consequences have been disastrous.

The U.S. Fish and Wildlife Service (USFWS) reports that between 1986 and 1997 the United States lost at least 644,000 acres of wetlands.[3] A close analysis of this report reveals an annual loss of 130,480 acres of wetland and estuarine habitat during that ten-year period (the report concludes that 58,500 acres of wetlands and open water habitats were lost each year over that period, but when ponds and lakes – which do not provide the same functions as wetlands – are removed from the report's statistical analysis, the much higher and more accurate wetlands impact number is revealed). Annual wetland losses are actually even far greater, because small ephemeral wetlands (those that dry out during part of the year) were not surveyed by the study. Ephemeral wetlands are frequently targeted for development and agriculture because they are common throughout the country and easily converted.[4]

While not all of these losses are attributable to mismanagement of the § 404 program, the losses from § 404 permitted activities are enormous. For example, according to the Corps, in just the year 2000 the nationwide permit program authorized 19,407 acres of wetland impacts and damage to 5,651,597 linear feet of streams. This is a dramatic increase from the reported wetland impacts permitted under the § 404 program just two years earlier. In 1998, the Corps reported 7,202 acres of wetland impacts from the nationwide permit program and 26,200 acres of wetland impacts from all types of permits.[5] These numbers almost certainly understate the total losses attributable to the § 404 permitting program because the Corps does not have a systematic method for tracking impacts and there has been no tracking at all of many losses allowed under general permits.

The significant losses attributable to the permitting program are perhaps not surprising since the Corps rarely denies a request for a § 404 permit. In 2001 and 2002, the Corps denied fewer than 1% of the permits requested. The Corps contends that it does not need to deny more permits because it ensures that the impacts of permitted activities are minimized to the maximum extent practicable. However, this contention is difficult to reconcile with the known losses to wetlands, streams, and other aquatic habitats since the § 404 program has been in place.

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The losses from the Corps' civil works program – which also must comply with the requirements of § 404 – have not been tracked, but are undeniably significant. Just a handful of Corps projects currently under construction or in the planning stages would destroy hundreds of thousands of acres of wetlands.[6]

EPA also is to blame for the failings of the program, as it has not aggressively used its authority to limit impacts. For example, EPA has used its veto authority under the Clean Water Act only 11 times. The total number of wetlands that would be damaged by those 11 projects was 7,780 acres of wetlands, ranging from 25 to 3,000 acres per veto. One veto was issued by the Carter administration, seven by the Reagan administration, and three by the George H.W. Bush administration. Only one of the 11 vetoes was for a Corps civil works project (Bayou aux Carpes).[7]

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II. Types of Section 404 Permits

Two basic types of § 404 permits authorize the disposal of dredged or fill material into protected waters: general permits and individual permits. The Corps will also issue "after-the-fact" permits in some instances including, unfortunately, where landowners or developers chose to proceed without a permit even when they knew that doing so violated the law.

A. General Permits

General permits are an expedited form of permitting for activities that are supposed to have no more than "minimal adverse impacts" both individually and cumulatively. General permits also are to be promulgated only for activities that are similar in nature and that are similar in their impact on water quality and the aquatic environment. A general permit can be issued for only five years. To reissue a general permit, the Corps must go through the entire permit evaluation process and a formal administrative rulemaking process. CWA § 404(e), 33 U.S.C. § 1344(e).

General permits are developed and promulgated by the Corps. General permits developed for the entire country are known as Nationwide Permits. General permits developed for specific regions or states are known as Regional Permits. Regional conditions can also be placed on Nationwide Permits to make sure they properly reflect a region's ecology.

The Corps must provide an opportunity for public notice and comment before proposing, issuing, modifying, extending, or revoking a general permit. It is important to note that this public notice and comment requirement applies only to issuance of the general permit (such as a Nationwide Permit for bank stabilization) and not to each instance where the Nationwide Permit is used.

Like all other permits, general permits must comply with the EPA 404(b)(1) Guidelines and the Corps' own § 404 regulations. They also are supposed to be evaluated under NEPA. Like all permits, general permits also are subject to state and tribal Clean Water Act § 401 Water Quality Certifications and to determinations that the general permit complies with any applicable approved Coastal Zone Management Plan. States and tribes may prohibit or condition the use of any general permit in their state or tribal lands if the general permit does not comply with state or tribal water quality standards. States and tribes also may require a Water Quality Certification for a specific activity that falls under a Nationwide Permit. *See Chapter 6 for a discussion of Clean Water Act § 401.*

If a particular project meets the conditions of an existing general permit (*e.g.*, in terms of type of activity and size of impact), that activity may be approved under the general permit. The Corps typically issues general permits on an expedited basis with no project specific review, and no notice or comment. The Corps can require an individual permit for an activity that would otherwise appear to meet the general permit conditions if that activity would result in more than minimal impacts.

Activist Tip

Careful scrutiny of projects "approved" under nationwide or other general permits can lead to important environmental victories.

In Ohio, a group of citizens became suspicious when a tree nursery began digging a deep channel in a high quality coastal marsh on Lake Erie. Though the project had been approved under Nationwide Permit 27, which authorizes wetland and stream restoration projects, the deep channel was obviously designed to deliver water to the nursery and not to improve conditions in the marsh. When the citizens complained to the Corps' Buffalo District, the general permit was revoked and the nursery was ordered to either restore the site or seek an after-the-fact individual permit.

While the district was prepared to grant an after-the-fact permit, the citizens, now organized as "Friends of Sheldon Marsh," continued to fight state certification of the project. Eventually, after public hearings, letters, and additional site visits, the Ohio Environmental Protection Agency denied certification for the project. The Corps was then forced to order complete restoration of the marsh.

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Activist Tip

To understand all of the requirements of a Nationwide Permit, you must look at three components:

(1) The text of the Nationwide Permit applicable to the activity at issue;

(2) The General Conditions applicable to all Nationwide Permits (these are located at the end of the 2002 Nationwide Permits); and

(3) Any Regional General Conditions for the Nationwide Permit applicable to the activity at issue.

Because activities covered under general permits undergo little or no review, it is important that general permits are adequately protective from the start. The public can help improve general permits by submitting comments when the general permits are being developed – the public will have the opportunity to comment on general permits every five years when they are reauthorized. The public can also request that states or tribes further condition the use of general permits, or revoke their use in the state or on tribal lands.

Nationwide Permits: Last issued on March 18, 2002, there are currently 44 Nationwide Permits. All of these Nationwide Permits expire on March 19, 2007. Some types of activities that are covered under the 2002 Nationwide Permits include bank stabilization, minor dredging, maintenance and dredging of existing basins, and maintenance of existing flood control projects. The most frequently used general permit is Nationwide Permit 39, which authorizes residential, industrial or institutional development activities with less than one-half acre of impact or less than 300 linear feet of impacts to a perennial or intermittent stream bed.

Most of the 2002 Nationwide Permits that authorize impacts of more than 1/10th of an acre require the applicant to notify the Corps in advance of construction. The Corps then has 45 days to decide if the project meets the Nationwide Permit conditions. Some of the 2002 Nationwide Permits do not require any pre-construction notification to the Corps.

The full text of each Nationwide Permit, and the General Conditions applicable to all Nationwide Permits can be found at www.usace.army.mil/inet/functions/cw/cecwo/reg/nationwide_permits.htm. Regional General Conditions on Nationwide Permits and Regional Permits must be obtained from the Corps district in which the activity will take place.

B. Individual Permits

An individual permit must be obtained for activities that do not qualify for a general permit. For example, an individual permit is required for activities that have larger impacts than those allowed under a general permit, for activities not covered by a general permit, and for waters or geographic areas not covered by a general permit. *See Section III below for a more detailed discussion of the process and standards used for evaluating individual permits.*

Before issuing an individual permit, the Corps must: (1) issue a public notice and provide an opportunity for public, federal agency, and state comment on the permit application; (2) conduct a two-tiered Clean Water Act evaluation; (3) apply the avoid and minimize requirements more rigorously than it would for a general permit; (4) conduct the project-

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specific environmental review required by NEPA; and (5) include any conditions required by state or tribal review of the permit.

C. After-the-Fact Permits

Many development activities occur without the knowledge of the Corps and without required § 404 permits. A developer is not necessarily fined when caught, but must proceed with the process of applying for an "after-the-fact" permit. The developer is required to pay for restoration if the permit is denied. If an after-the-fact permit is granted, the developer is allowed to continue with the activity but must follow all conditions set forth in the permit and mitigate the impacts.

In granting an after-the-fact permit, the Corps must follow the same process and apply the same regulations and policies used for granting individual permits. No after-the-fact permit can be processed if: (1) the district engineer determines legal action is appropriate; (2) enforcement litigation has already been initiated by the Corps or other entity, such as concerned citizens; or (3) a required federal, state, or local authorization/certification has already been denied. 33 C.F.R. § 326.3(e).

Applicants who are denied an after-the-fact permit, or who disagree with the conditions of an after-the-fact permit, can appeal the decision to the next higher level within the Corps under the same administrative appeals process discussed above. 33 C.F.R. § 331.11.

D. Activities Exempt From Permitting

The Clean Water Act exempts a number of activities from the § 404 permit requirements. However, even exempted activities will require a § 404 permit under certain circumstances. CWA § 404(f), 33 U.S.C. § 1344(f).

The following activities are designated as exempt and do not require a § 404 permit unless one of the triggers discussed below are met (exempted activities are described in detail at 33 C.F.R. § 323.4):

- Normal farming, silviculture (forestry) or ranching practices that are part of an established, ongoing operation. Practices that are not considered normal, such as deep ripping[8] are not exempt and require a permit. Activities conducted for new operations also require a permit. For example, a landowner would need a permit to construct a fish farming pond on land that had not previously been used for fish farming;[9]
- Maintenance of structures, such as dikes, dams, levees, breakwaters, causeways, or bridge abutments (maintenance does not include modifications to the character, scope or size of the original fill design);
- Construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance (but not construction) of drainage ditches;

Activist Tip

The Corps often is not aware of development activities that affect wetlands. Activists can monitor development activities in their communities, determine if a developer has the proper permit, and report activities that are being conducted without a permit to the Corps and appropriate state regulatory agencies so the Corps and the state can evaluate the developer's work under the permitting process.

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- Construction of temporary sedimentation basins on a construction site that does not involve the placement of fill material in protected waters;
- Any activity that has already been approved by a state nonpoint source pollution discharge program that meets specified requirements under § 208(b)(4) of the Clean Water Act; and
- Construction or maintenance of farm or forest roads, or temporary roads for moving mining equipment, as long as such roads comply with best management practices and detailed requirements set forth in the regulations.

These exempted activities will nevertheless require a § 404 permit if the discharge contains a toxic pollutant, or if the purpose of the activity is to convert protected waters into a new use where the flow or circulation of water may be impaired or the reach of such waters reduced. The water's flow or circulation is presumed to be impaired if the discharge will cause "significant discernable alterations" to flow circulation. Exempted activities will also require a § 404 permit if they are incidental to the construction of structures designed to drain or otherwise significantly modify wetlands and other protected waters. 33 C.F.R. § 323.4.

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III. The Section 404 Permit Review Process

This section provides an overview of the nine step permit review process, followed by a more detailed discussion of Step 5 of that process – the review that determines whether the permit satisfies the requirements of the Clean Water Act.

A. Nine Step Permit Review Process

The following is an outline of the nine steps involved in reviewing, evaluating, and issuing individual § 404 permits. While these steps are discussed sequentially, they often overlap and may require several iterations before being satisfied.

Step 1 – Initial Determinations: Upon receipt of a permit application, the Corps must determine if the water in question is protected under the Clean Water Act, whether the proposed activity requires a permit, and if so, whether an individual permit is required. In addition, the Corps must determine whether the permit application is complete and if it is not, the Corps must request additional information from the applicant. The Corps encourages pre-application conferences to address many of these issues.

Step 2 – Public Notice: Once the Corps determines that the permit is complete, it must issue a public notice within 15 days that describes the permit application, the proposed activity and its location, and the potential environmental impacts. The items that must be included in a public notice are set forth at 33 C.F.R. § 325.3. The notice must invite the public to submit comments within a specified period of time. The notice does not have to be published in the Federal Register. Instead, the notice must be posted in certain public locations and sent to interested parties. Most Corps districts now post their permit notices online. However, it is still advisable to notify the appropriate Corps district (preferably in writing) that you want to be included on the district's public notice mailing list to make sure that you receive all notices.

Generally, a public notice must "include sufficient information to give a clear understanding of the nature and magnitude of the activity to generate meaningful comments." 33 C.F.R. § 325.3(a). The courts have interpreted this to mean that the Corps is required to disclose to the public any pivotal data underlying its proposed action before the close of the notice and comment period.[10] The typical Corps public notice, however, provides only minimal and/or boilerplate information, and does not provide the information needed to generate meaningful public comment. Additional information can usually be obtained by contacting the Corps project manager for the permit or the state water quality certification project manager for the permit. It is strongly recommended that you attempt to obtain additional information before submitting your comments.

Step 3 – Comment Period: Interested federal and state agencies, organizations, and individuals may submit written comments on the permit application during the identified comment period, which is typically 15 to 45 days. Any person or organization can

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Activist Tip

Activists should make the most of opportunities to comment on § 404 permits.

Public comment serves three key purposes. First, it can advise the Corps of the depth of opposition to a particular activity. Second, it can provide detailed project information for the administrative record that might otherwise be ignored. Third, it can give individuals and organizations "standing" to file a legal challenge to the permit if that becomes necessary.

Comments on a § 404 permit should include details on why the permit should be denied and specific information on how the proposed activity could be modified to reduce harm to the environment. Activists should provide as much detail as possible on less damaging locations for the project – including locations not currently owned by the applicant, opportunities for avoiding and minimizing impacts of the project, and necessary mitigation.

request that the Corps hold a public hearing and/or provide a longer comment period. The Corps often will agree to provide additional time to submit comments. You should confirm any individual extensions of time to submit comments in a letter or at least an email to the person granting the extension, and retain a copy of the written confirmation for your records. If you do not submit written comments, the Corps will assume that you have no interest in the outcome of the permitting decision. In most instances, if you or your organization does not submit written comments on a permit you will not have legal "standing" (*i.e.*, the legal right to file a lawsuit) to challenge that permit in court.

Federal agencies including EPA, USFWS, NOAA Fisheries, and the Federal Emergency Management Agency (FEMA) are invited to comment on permit applications. These agencies also can have a significant influence over Corps permits and projects through other legal avenues such as ensuring compliance with the Endangered Species Act. Activists should strive to develop good working relationships with agency staff and provide them with as much background material, guidance, and support as possible. *See Chapter 5, and Section I above, for more on the roles of federal agencies.*

The Corps reviews the public and agency comments to help determine whether the permit should be denied, issued, or issued with conditions, and to help determine whether an Environmental Impact Statement (EIS) or just an Environmental Assessment (EA) must be prepared. Since one of the purposes of an EA is to determine whether an EIS is necessary, a decision by the Corps to prepare an EA is not the final word on whether an EIS will ultimately need to be prepared.

Step 4 – Public Hearing: The Corps may hold a public hearing on the permit application if one is requested and if the Corps determines that there is sufficient public interest in a hearing. Citizens cannot force the Corps to hold a hearing because, as a matter of law, that decision is within the sole discretion of the Corps. Hearings on permit applications are somewhat rare, but you should request a hearing if the permit is of particular concern to a noticeable community of interest. As part of its review, a state also may hold a public hearing, and sometimes will hold a joint hearing with the Corps. Prior to requesting a public hearing, you should carefully consider whether you would be able to get a sufficient number of people to attend because a small turnout of people expressing concerns about the permit could undermine your efforts.

Step 5 – Clean Water Act Evaluation: The Corps conducts a two-tiered regulatory analysis to determine whether the proposed activity or Corps project complies with the Clean Water Act and its implementing regulations. Tier one involves determining whether a permit application or civil works project complies with EPA's Clean Water Act § 404(b)(1) Guidelines, and tier two requires the Corps to evaluate the activity under its own regulations to determine whether the permit or project is in the public interest. *See Subsection B for more on the Clean Water Act evaluation process.*

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The Corps is also supposed to evaluate the permit to ensure that it meets the "sequencing" and mitigation policies established by the Corps and EPA. Under sequencing, a party seeking a § 404 permit – and the Corps before approving a civil works project – must take three key steps in a specific order. First, the applicant (or the Corps for civil works projects) must demonstrate that steps have been taken to avoid impacts to protected waters, and especially to wetlands or other special aquatic sites where practicable. Second, for those impacts that cannot be avoided, the applicant or the Corps must demonstrate that steps have been taken to minimize impacts to the greatest extent practicable. Finally, the applicant or the Corps must propose compensatory mitigation for harm to waters that cannot be avoided or minimized.

In determining the appropriate amount, and other details, of mitigation, the Corps is supposed to follow mitigation guidance that has been established by the Corps and EPA. Compensatory mitigation generally consists of efforts to restore or replace at least an equivalent amount of aquatic habitat that replaces the lost wetland or other aquatic functions, in most cases of the same type. Unfortunately, compensatory mitigation has not been very successful in replacing lost habitat. *See Section IV below for more on mitigation.*

Step 6 – NEPA Evaluation: The Corps or the applicant must prepare an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) for the proposed activity before the Corps makes a decision on a permit, unless the proposed activity falls within a categorical exclusion that exempts it from NEPA review. 33 C.F.R. § 325.2. The Corps is responsible for ensuring preparation of adequate NEPA documentation even if the EA or EIS is prepared by the applicant or a consultant. As a result, the Corps (and not the applicant) would be sued in a lawsuit challenging an EA or EIS. The NEPA process also provides a second important opportunity for public comment. Unlike the public notice in Step 2, public notice of intent to prepare an EIS must be published in the Federal Register. *See Chapter 6 for a discussion of the requirements of the National Environmental Policy Act.*

Step 7 – State and Tribal Review: States and tribes have a key role in approving, conditioning, or prohibiting Corps permits and projects. The Corps cannot issue a § 404 permit and cannot construct a civil works project until the state or tribal regulatory agency issues, denies, or waives a Water Quality Certification for the activity. 40 C.F.R. § 325.2. If a Water Quality Certification is issued, all conditions placed on that certification (*e.g.*, additional mitigation, partial approval of the project, etc.) must become part of any final Corps permit. If a Water Quality Certification is issued, the Corps can still deny the § 404 permit, but if a Water Quality Certification is denied the Corps cannot issue the § 404 permit.

Activist Tip

A state's Water Quality Certification review is a critical step in the permitting process, and participating in this review can be one of the most important efforts an activist can take to stop or modify a Corps permit. Through this review, the state or tribe can stop the Corps from issuing a permit or impose significant conditions to reduce the impacts of the activity.

Activists should be sure to give the state all the information on a proposed permit that they have given to the Corps.

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The Water Quality Certification process is set forth in § 401 of the Clean Water Act, which authorizes states and tribes to review Corps permits and certain Corps projects within their boundaries to determine whether the activity complies with state water quality standards. This review is not mandatory and some states will elect not to conduct one. Upon completing a review for compliance with state water quality standards, the state or tribe can issue or deny certification. The state Water Quality Certification process also has public notice and comment requirements, and states can also hold hearings. *See Chapter 6 for a more detailed discussion of the Clean Water Act § 401 Water Quality Certification requirements.*

Coastal states with approved Coastal Zone Management Plans can also review Corps permits and project decisions to determine compliance with the Coastal Zone Management Plan. The impact of a state's finding that the project or permit is not consistent with the Coastal Zone Management Plan depends on the type of project and the applicant. These rules are set forth at 33 C.F.R. § 325.2(b)(2). In addition, the Corps must consult with states to determine whether any historic or archeological sites will be impacted by the permitted activity, pursuant to the National Historic Preservation Act. 16 U.S.C. § 470(f); 36 C.F.R. § 800.2(c)(1).

Step 8 – Permit Decision: The Corps' permit decision should be based on the public and agency comments received, the Clean Water Act evaluation, the NEPA evaluation, and any state or tribal review and requirements. Once it reaches a decision, the Corps must issue a Statement of Finding, or where an EIS was prepared a Record of Decision, explaining its decision on the permit application including any permit conditions. These final decision documents, along with the final NEPA documentation (be it an EA or an EIS), must be made available to the public.

The Corps can reevaluate an issued permit if it finds that the decision to grant the permit was based on false, incomplete, or inaccurate information, or if significant new information comes to light that was not considered in reaching the original decision.

Step 9 – EPA Veto: As discussed in Section I above, EPA can veto a § 404 permit or a Corps project if the activity would have unacceptable impacts, but such vetoes are extremely rare. EPA can issue a veto either before or after the Corps issues a permit or decides to move ahead with a civil works project. The Corps may not issue a permit if the EPA regional administrator has notified the district engineer and the applicant in writing that she/he intends to prohibit, deny, restrict or withdraw the use of the area as a disposal site under Clean Water Act § 404(c). CWA § 404(c), 33 U.S.C. § 1344(c); 33 C.F.R. § 323.6(b).

In making its veto determination, EPA will consider the effects of both the permitted activity (for example, filling wetlands to build a dam) and the resulting impacts of the

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project (for example, the impacts of the reservoir created by the dam). Public notice, and public comment and hearings are required before a veto can be issued. Regulations governing the veto process are found at 40 C.F.R Part 231.

B. Two-Tiered Clean Water Act Evaluation

As noted in Step 5 above, before issuing a § 404 permit or approving a civil works project, the Corps must evaluate the activity to make sure it complies with the Clean Water Act and its implementing regulations. The Corps does this through a two-tiered analysis that is at the heart of the permit evaluation process.

The Corps must first determine if the activity complies with the EPA 404(b)(1) Guidelines. These Guidelines establish detailed environmental standards that must be met before a permit can be issued or a Corps project can be approved. If the proposed activity violates the Guidelines, the Corps **must deny** the permit (or not move forward with its own civil works project). If the proposed activity complies with the 404(b)(1) Guidelines, the Corps must undertake a second analysis.

Under its second analysis, the Corps must determine if the proposed activity is in the public interest, as defined by the Corps' own § 404 regulations. If the proposed activity would be contrary to the public interest, the Corps **must deny** the permit (or not move forward with its own civil works project), even if the proposed activity meets the requirements of the 404(b)(1) Guidelines.

Tier One – EPA § 404(b)(1) Guideline Evaluation: Determining whether a permit application or civil works project complies with EPA's Clean Water Act § 404(b)(1) Guidelines is the fist step in the Corps' two-tiered Clean Water Act evaluation. Compliance with the 404(b)(1) Guidelines is mandatory, despite the "guideline" label, and the Corps must deny a permit if the proposed activity does not comply with the 404(b)(1) Guidelines.

The 404(b)(1) Guidelines state that "dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a 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 of concern." 40 C.F.R. § 230.1(c). The 404(b)(1) Guidelines go on to provide guidance on evaluating the impacts of a proposed activity. The 404(b)(1) Guidelines are found at 40 C.F.R. Part 230 and can be accessed at http://www.epa.gov/owow/wetlands/40cfr/.

Activist Tip

Activists can do much to ensure that the protective regulations implementing § 404 are strictly applied. Your active participation in the permitting process can prevent the Corps from succumbing to pressure from the private sector (and Congress) to make quick decisions that favor development over environmental protection.

It is important to build the record for strict compliance by submitting detailed comments and by helping others, including federal and state agencies and independent experts, to do the same.

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Activist Tip

Activists should identify practicable alternatives for a proposed activity in written comments on a Corps permit or project. If a practicable alternative is available, the Corps legally may not issue the permit or approve a civil works project. You will make it much harder for the Corps to ignore this requirement if you provide specific details on possible alternative plans and locations.

The 404(b)(1) Guidelines explicitly require the Corps to deny a § 404 permit in four situations (*see the "Key Definitions" box for more on the terms bolded below*):

(1) A permit must be denied if there is a practicable alternative that will cause less harm. A § 404 permit must be denied "if there is a **practicable alternative** to the proposed discharge which would have less adverse impact on the **aquatic ecosystem**." 40 C.F.R. § 230.10(a). "An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." This includes locating the project in an area not currently owned by the applicant. An area that is not presently owned by the applicant may be a practicable alternative if it "could be reasonably obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity." 40 C.F.R. § 230.10(a)(2).

If an activity is not **water dependent**, the 404(b)(1) Guidelines create a legal presumption that practicable alternatives to the proposed activity are available that do not involve a **special aquatic site.** Special aquatic sites include wetlands, mud flats, and riffle and pool complexes that are deemed to be so ecologically valuable that their degradation or destruction may represent an irreversible loss of valuable aquatic resources. 40 C.F.R. § 230.1(d). Unless the applicant clearly demonstrates that a practicable alternative does not exist, the Corps is supposed to deny a permit that impacts a special aquatic site. This is supposed to place a very strong burden on the applicant to show that there are no practicable alternatives to the proposed activity.

An activity is **water dependent** if it requires access or proximity to a special aquatic site in order to fulfill the activity's basic purpose. 40 C.F.R. § 230.10(a)(3). For example, a housing project is by definition not water dependent, because you can build homes without being near or in the water. A marina, on the other hand, likely will be water dependent. Applicants often attempt to describe a project in such a way that it will be deemed to be water dependent (so that the applicant will have a lighter burden to meet in obtaining a permit). For example, an applicant may claim that the purpose of a project is to build a water front hotel or an upscale housing development with an attached marina. Whether either of these projects is truly water dependent would rest on identifying the appropriate project purpose for the purposes of § 404. Water dependency is a critical but complicated issue. If faced with a questionable case you should seek guidance from someone with expertise in this area.

There is a second legal presumption related to the practicable alternatives analysis. It is presumed that the NEPA documents that must be prepared before a permit can be issued will satisfy the practicable alternatives analysis and demonstrate that no

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practicable alternatives exist. 40 C.F.R. § 230.10(a)(4). Like all legal presumptions, however, this one can be rebutted – and in many cases it will need to be rebutted because NEPA documents often will not satisfy the practicable alternatives analysis. Comments on NEPA documents and permit applications should provide as much detail as possible on why the NEPA analysis does not satisfy the practicable alternatives (or other) requirements of the 404(b)(1) Guidelines.

(2) A permit must be denied if the discharge would violate certain laws and standards. A § 404 permit must be denied if the proposed discharge would: (a) cause or contribute to violations of any state water quality standard; (b) violate any applicable toxic effluent standard or prohibition under Clean Water Act § 307; (c) jeopardize the existence of endangered or threatened species listed under the Endangered Species Act, or result in a likelihood of the destruction or adverse modification of formally designated critical habitat; or (d) violate any requirement imposed by the Secretary of Commerce to protect any marine sanctuary under the Marine Protection, Research and Sanctuaries Act. 40 C.F.R. § 230.10(b).

(3) A permit must be denied if the discharge would cause or contribute to significant degradation of water quality. A § 404 permit must be denied if the discharge would cause or contribute, either individually or cumulatively, to significant degradation of protected waters. Significant degradation will be measured by significant adverse affects on: (a) human health or welfare, including municipal water supplies, plankton, fish, shellfish, wildlife and special aquatic sites; (b) life stages of aquatic life and other water-dependent wildlife; (c) aquatic ecosystem diversity, productivity, and stability, such as loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water or reduce wave energy; and (d) recreational, aesthetic and economic values. 40 C.F.R. § 230.10(c).

(4) A permit must be denied unless the applicant has taken steps to minimize harm to protected waters. A § 404 permit must be denied if the permit applicant has not taken "appropriate and practicable" steps to minimize potential adverse impacts on the aquatic ecosystem. 40 C.F.R. § 230.10(d). Potential adverse impacts may be minimized by: (a) the selection of the discharge location; (b) treating or limiting the material to be discharged; (c) controlling the material after it has been discharged and the method of dispersion; (d) utilizing technology to reduce impacts; and/or (e) avoiding interference with animals and their habitat. More detail on actions that can be taken to minimize adverse environmental impacts can be found at 40 C.F.R. §§ 230.70 to 230.77.

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Key Definitions

Aquatic environment and aquatic ecosystem mean "waters of the United States, including wetlands, that serve as habitat for interrelated and interacting communities and populations of plants and animals." 40 C.F.R. § 230.3(c).

Practicable alternative means an alternative that is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." This includes locating the project in an area not currently owned by the applicant if it "could be reasonably obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity." 40 C.F.R. § 230.10(a)(2).

Special aquatic sites mean wetlands, mud flats, vegetated shallows, riffle and pool complexes, coral reefs, sanctuaries, and refuges. These are "geographic areas, large or small, possessing ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region." 40 C.F.R. § 230.3(q-1), and § 230.40 to § 230.45.

Water dependent means the activity requires access or proximity to or siting within a special aquatic site in order to fulfill its basic purpose. 40 C.F.R. § 230.10(a)(3).

Wetlands mean "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." 40 C.F.R. § 230.3(t).

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Tier Two – The Corps' Public Interest Review Evaluation: If the Corps determines that a permit can be granted or a project can be approved under the EPA 404(b)(1) Guidelines, the Corps must conduct the second tier of its Clean Water Act review. Under this second tier, the Corps must evaluate the activity under its own regulations to determine whether the permit or project is in the public interest. The Corps must deny a permit if granting the permit would not be in the public interest as defined by the Corps' regulations. 33 C.F.R. §§ 320.4 and 323.6.

Under its public interest review, the Corps must evaluate the "probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest." 33 C.F.R. § 320.4(a). The benefits that reasonably may be expected to accrue from the project must be weighed against its reasonably foreseeable detriments. The Corps' § 404 regulations are found at 33 C.F.R. Parts 320 to 331, and additional policy guidance can be found at www.usace.army.mil/inet/functions/cw/cecwo/reg.

The Corps' public interest review decision should reflect the national concern for both protecting and utilizing important resources, including protecting wetlands – a value explicitly recognized by the Corps' own regulations, which state that "wetlands constitute a productive and valuable public resource, the unnecessary alteration or destruction of which should be discouraged as contrary to the public interest."[11] 33 C.F.R. § 320.4(b).

The Corps' public interest evaluation also must consider all factors that may be relevant, and the cumulative effects of those factors, including:

- Environmental factors such as conservation, wetlands, fish and wildlife values, water quality, floodplain management, water conservation, energy conservation, environmental benefits, and mitigation;
- Cultural and economic factors such as historic, cultural, aesthetics, scenic and recreational values, general environmental concerns, water supply, development, navigation, and economics;
- The relevant extent of the public and private need for the proposed work;
- The practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed work, where there is a conflict as to the resource use; and
- The extent and permanence of the beneficial and/or detrimental effects the proposed work is likely to have on the public and private uses to which the area is suited. 33 C.F.R. § 320.4(a).

Similarly, in recognition of the significant natural values and functions of floodplains, the Corps is supposed to avoid authorizing floodplain development whenever practicable alternatives exist outside the floodplain. 33 C.F.R. § 320.4(l).

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Activist Tip

Activists should use the poor record on mitigation to make three key points in written comments on Corps permits (and projects):

(1) The Corps should deny a permit that would result in unacceptable impacts to protected waters because there is a strong likelihood that mitigation would not offset those impacts. If appropriate, comments should explain why mitigation is not likely to offset the impacts and urge the Corps to deny the permit.

(2) The Corps should make every effort possible to ensure that impacts to wetlands and other aquatic habitats are avoided in the first instance, because mitigation is likely to fail. Comments should stress the need to avoid impacts to protected waters and provide details on opportunities to do so.

(3) To improve the likelihood of mitigation success, detailed mitigation requirements developed after careful planning should be included as enforceable conditions of new permits. Comments should provide as much detail as possible on needed mitigation and on elements that should be included in the mitigation plan.

IV. Mitigation for Permitted Activities

As illustrated in Section I, despite the protections provided by § 404 and the no-net-loss of wetlands goal, the nation continues to lose wetlands, streams, and other aquatic habitats at an unacceptable rate. Mitigation is an attempt to offset some of these losses.

This section discusses the current dismal state of mitigation success, the various types of mitigation that can be implemented, federal and state mitigation requirements, and key elements of an effective mitigation plan. It also highlights opportunities for activists to help improve the mitigation process and the likelihood of mitigation success.

A. Mitigation Overview

To satisfy the purposes of the Clean Water Act and the no-net-loss of wetlands goal, compensatory mitigation should replace the lost functions, values, and spatial extent of aquatic habitats damaged or destroyed by activities governed by § 404. However, compensatory mitigation has been only marginally successful and these goals are not being met.

Scientists have concluded that under the § 404 program, the "actual amount of wetland impacts offset is only about 20 percent, meaning that the section 404 permitting program has been fostering an 80 percent net loss of wetlands."[12] The Corps' civil works mitigation record is equally dismal. In May 2002, the Government Accountability Office found that the Corps has not implemented any mitigation at all for almost 70 percent of civil works projects constructed since 1986. *See Chapter 2 for a discussion of mitigation for civil works projects.*

The failure of mitigation is due to a host of reasons including poor mitigation planning, improper implementation, lack of implementation, and lack of mitigation monitoring and follow-up. In addition, the scientific understanding of many types of wetlands is so lacking that scientists cannot even describe the steps necessary to restore them.

Importantly, the National Research Council has noted that there is "a considerable controversy over whether or not wetlands can actually be restored. The arguments are particularly important when wetland restoration is undertaken within the mitigation context, and the promise of full restoration of a degraded site allows a natural wetland to be destroyed."[13]

The lack of successful mitigation for § 404 permits and Corps projects has very real ecological and economic impacts. For example, wetlands filter pollutants from water; absorb and slow the release of storm runoff; recharge aquifers; provide crucial wildlife habitat for millions of migrating waterfowl, shorebirds, and other species; and provide recreation and enjoyment to millions of Americans who visit wetland areas each year. When wetland losses are not mitigated effectively, water quality decreases, water supplies are strained, flood damages increase, and wildlife suffers.

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B. Types of Compensatory Mitigation

As discussed in Section III, compensatory mitigation (the third step of the three step sequencing policy that is supposed to be applied in all § 404 permits) generally consists of efforts to restore or replace at least an equivalent amount of aquatic habitat that replaces the lost functions, in most cases of the same type. There are four general types of compensatory mitigation that differ in their ability to replace lost functions and values:

(1) **Creation** involves building new wetlands in upland areas, which are areas where wetlands did not previously exist. This type of mitigation frequently fails to become fully functioning because the correct soils, hydrology, and historic seed bank are not present to support wetland creation.

(2) **Restoration** involves recreating a wetland that has been drained or otherwise damaged. This is the preferred mitigation method because it has the greatest likelihood of being ecologically successful. Restoration provides the best chance of replacing both lost functions and acres.

(3) **Enhancement** involves improving the functioning of an existing wetland. Enhancement does not replace lost wetland acreage, and it is often difficult to quantify any improvements in wetland function. This type of mitigation should be used only in addition to restoration of at least one acre for each acre harmed.

(4) **Preservation** involves protecting an existing high-quality wetland through purchase or other means. This form of mitigation cannot compensate for either lost functions or acreage of wetlands destroyed by development. It should only be used in addition to restoration of wetlands on at least an acre for acre basis.

Some Corps districts will grant mitigation credit for placing a conservation easement or other form of protection on an upland buffer around existing or restored wetlands. While this can help to protect wetlands, it does not compensate for the acreage of wetlands lost to development, and does not replace lost wetland functions. It should be used only in addition to restoration of wetlands on at least an acre for acre basis. Generally, sufficient buffers should be required as part of the cost of mitigating wetland impacts and should not, in and of themselves, be given mitigation credit.

These various types of compensatory mitigation can be implemented through project specific efforts, mitigation banks, and in lieu fee arrangements.

Project specific mitigation is mitigation carried out to compensate for wetland and other impacts resulting from a specific permitted activity or Corps project. The mitigation will be implemented after the permit is issued or the Corps project is approved. For § 404 permits, the permittee is ultimately responsible for the implementation and success of

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the mitigation. *See Chapter 2 for a discussion of mitigation for civil works projects.*

Mitigation banks are large-scale wetland mitigation projects that attempt to create, restore, or enhance wetlands so that the bank can sell mitigation credits to others who are developing in wetlands. Mitigation banks are supposed to create wetlands (and wetland functional values) that did not exist at the time the property was acquired. Many are based in part on preservation or enhancement of existing wetlands so any argument that they replace wetlands is weak at best. Credits are supposed to be based on the amount of wetlands or wetland functions restored or created. However, credits are often sold before monitoring shows that the mitigation credits function as promised and/or before restoration or enhancement has taken place – the Corps even allows new banks to sell credits as soon as they obtain a deed to the mitigation bank lands, which can occur long before implementation of any mitigation. In addition, mitigation banks are often a long distance from the project and are based on preservation and enhancement. As a result, mitigation banks are often not the best mitigation option.

In-lieu-fee mitigation involves payment of a fee into a pooled mitigation fund managed by a for-profit business, conservation group, land trust, or government agency. This type of mitigation should be used only in very rare instances. Frequently, this type of mitigation includes few reporting requirements and no monitoring. It also may be years before the funds are used to restore wetlands. Frequently, the funds are simply used to buy existing wetlands that do not sufficiently compensate for functions and acreage of wetlands lost to development.

C. Federal and State Mitigation Requirements

This Subsection discusses federal and state mitigation requirements that are intended to offset the harm caused by § 404 permitted activities and Corps projects. To improve mitigation success, it is vital to ensure the strictest possible compliance with these requirements, even as it is clear that they must be strengthened if we are to have any hope of achieving the no-net-loss of wetlands goal.[14]

While many of the requirements discussed below specifically address wetlands, it is also very important to remember that damage to rivers, streams, and other waters also must be mitigated.

Federal Mitigation Requirements: An overview of the federal mitigation requirements for activities requiring a § 404 permit is set forth in a December 24, 2002 Regulatory Guidance Letter (RGL 02-2). Mitigation for the Corps' civil works program is governed by RGL 02-02 and additional statutory and regulatory requirements. *Additional civil works mitigation requirements are discussed in Chapter 2.*

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Neither the Corps nor EPA has set minimum standards for the number of acres required to replace wetlands that have been destroyed or damaged, though some EPA regions do recommend a specific amount of mitigation for each acre damaged.[15] This amount is often referred to as a mitigation ratio (*e.g.*, a 2:1 mitigation ratio means that two acres of mitigation are required for every acre damaged or destroyed).

EPA and the Corps instead require that mitigation result in no net loss of wetland functions. The Corps has contended that no net loss of functions can be achieved without requiring even 1:1 replacement because mitigation can readily create fully functioning, "superior" quality wetlands that more than offset the functions lost when "lower" quality wetlands are destroyed. While this contention has been repeatedly disproved, the Corps nevertheless often allows permit holders – and itself – to implement less than 1 acre of mitigation for each wetland acre damaged or destroyed by a project.

Among other things, RGL 02-2:

- Requires mitigation that will supposedly result in no net loss of functions without requiring a minimum of 1:1 acreage replacement of wetlands – this is a significant rollback from earlier guidance and essentially abandons the no-net-loss of wetland acres goal. The RGL assumes that mitigation will produce higher quality wetlands than those damaged or destroyed by the permitted activity, but science and on-the-ground experience do not support this assumption;
- Requires replacement of lost stream functions;
- Creates a very weak preference for "on-site" mitigation, while allowing use of "off-site" mitigation for most projects – this is a significant rollback from earlier guidance that created a strong preference for on-site mitigation;
- Allows "out-of-kind" mitigation by allowing mitigation with wetlands that are of a different type than the wetland damaged or destroyed (e.g., mitigating the loss of a forested wetland with an emergent wetland) – this is a significant rollback from earlier guidance that established a strong preference for "in-kind" mitigation;
- Allows the granting of some mitigation credits for upland buffers;
- Identifies some elements that should be included in a mitigation plan *(see Subsection D);*
- Recommends using watershed and ecosystem approaches when determining compensatory mitigation requirements; and
- Recommends consideration of the operational guidelines developed by the National Research Council for creating or restoring ecologically self-sustaining wetlands (these guidelines are included as appendix B of RGL 02-2).

RGL 02-02 can be accessed at http://www.usace.army.mil/inet/functions/cw/cecwo/reg/RGL2-02.pdf. As discussed below, additional mitigation guidance documents are currently being developed by the Corps, EPA, and other federal agencies. As they are finalized they will be available at www.mitigationactionplan.gov/actionitem.html.

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Some Corps districts have established standard operating procedures (SOP) for regulatory actions requiring compensatory mitigation. These procedures also typically focus solely on replacing lost functions rather than lost functions and acreage. These SOPs typically are not valid for use with large-scale Corps projects. *E.g.*, Charleston District SOP (RD-SOP-02-1, dated September 19, 2002); Savannah District SOP at http://www.sas.usace.army.mil/permit/sect1.rtf.

Ongoing Federal Efforts to Develop Mitigation Guidance and a Mitigation Tracking System: The Corps, EPA, and other federal agencies are currently involved in a process intended to improve mitigation success. The National Wetlands Mitigation Action Plan (released on December 26, 2002) includes a series of tasks designed to improve the ecological performance and results of compensatory mitigation. Information on the progress being made on the action plan can be found at http://www.mitigationactionplan.gov/. It may be useful to track the activities of the Mitigation Action Plan as the process may produce key guidance and information.

The Mitigation Action Plan is supposed to produce new mitigation guidance on such things as: (1) the use of on-site vs. off-site and in-kind vs. out-of-kind compensatory mitigation; (2) the use of vegetated buffers as a potential component of compensatory mitigation; (3) the appropriate use of preservation for compensatory mitigation; (4) criteria for making compensatory mitigation decisions in a watershed context; (5) protecting wetlands for which mitigation, restoration, or creation are not feasible or scientifically viable; and (6) performance standards for monitoring and adaptive management of mitigation sites.

Through the Mitigation Action Plan the federal agencies are also developing a mitigation database that is to be shared by the Corps, EPA, U.S. Department of Agriculture, U.S. Department of Interior, and NOAA Fisheries. Ultimately this shared database will provide an annual public report card on compensatory mitigation to complement reporting of other wetlands programs.

State Mitigation Requirements: As discussed above, the Corps has not set a minimum requirement for the number of acres required to replace wetlands that have been damaged or destroyed by a § 404 permitted activity or Corps project. A number of states, however, do require, or at least recommend, a specific amount of mitigation. States can require use of their mitigation ratios through the § 401 Water Quality Certification process or where they have assumed management of the § 404 process.

Required or recommended mitigation ratios are typically tied to the type of mitigation used (creation, restoration, enhancement, or preservation) and the type of wetlands damaged by the permitted activity or project. The following are some examples:

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- California requires greater than one-to-one mitigation, and has a goal "to ensure no overall net loss and a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property."[16] The California Coastal Commission, for example, always requires a mitigation ratio greater than 1:1 and often will require ratios of 4:1 or larger.[17]
- Florida's South Florida Water Management District recommends mitigation ratios of from 1.5:1 to 60:1, depending on the type of mitigation utilized – creation 1.5:1 to 5:1; restoration 1.5:1 to 5:1; enhancement 4:1 to 20:1; preservation 10:1 to 60:1.[18]
- Indiana requires mitigation ratios of from 1.5:1 to 4:1 depending on the quality of the wetlands impacted and the distance of the mitigation site from the impacted site – restoration or creation of similar wetlands near the impacted area requires at least 1.5:1; impacts to wetlands dominated by grasses, wildflowers and other herbaceous plants require 1.5:1 to 2:1; impacts to wetlands dominated by shrubs and saplings require 2:1 to 3:1; and impacts to wetlands dominated by trees requires 3:1 to 4:1. These ratios can be increased by the regulatory agencies.[19]
- Michigan requires mitigation that will ensure no net loss of wetlands. Wetland mitigation must be of a similar ecological type as the impacted wetland wherever feasible and practical, and under those conditions the following mitigation ratios will be required – restoration or creation of 5:1 for impacts to wetland types that are rare or imperiled on a statewide basis; restoration or creation of 2:1 for impacts to forested wetland types, coastal wetlands that are not rare or imperiled, and wetlands that border upon inland lakes; restoration or creation of 1.5:1 for impacts on all other wetland types; and mitigation through preservation of existing wetlands requires a ratio of 10:1. These ratios can be increased if the replacement wetland is of a different ecological type than the impacted wetland.[20]
- Minnesota requires a minimum replacement ratio of 2:1. For wetlands on agricultural land or in counties where 80% or more of pre-settlement wetlands exist, the minimum replacement is 1:1.[21]
- Ohio requires mitigation ratios of from 1.5:1 to 3:1 depending on the type of wetland impacted and the type of mitigation utilized.[22]
- Oregon requires minimum ratios based on the type of compensatory mitigation proposed – restoration 1:1; creation 1.5:1; enhancement 3:1; enhancement of cropped wetlands 2:1.[23]
- Pennsylvania requires wetlands mitigation "at a minimum area, function, and value ratio of 1:1."[24]
- Rhode Island's Coastal Resource Management Council requires wetland mitigation for all alterations to coastal wetlands at a ratio of 2:1.[25]
- Virginia requires minimum ratios for compensation of wetland impacts of 2:1 for forested wetland impacts; 1.5:1 for scrub-shrub wetland impacts; 1:1 for emergent wetland impacts; and 1:1 for stream impacts. Project-specific ratios are determined for other open water impacts.[26]

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Activist Tip

The Corps typically does not provide a draft mitigation plan for the public to review during the permit and NEPA public comment periods. Activists should formally request copies of mitigation plans prior to submitting comments, but it is important to submit detailed comments on needed mitigation even if a plan is not provided.

Comments submitted on both the permit and NEPA documents should provide detailed information on what should be included in a sound mitigation plan. In addition to improving the chance of mitigation success, pointing out necessary components of a sound mitigation plan can make the mitigation more "real" which should help drive avoidance of impacts in the first place.

- Washington state recommends mitigation ratios of from 1.5:1 to 24:1 depending on the type of mitigation utilized.[27]
- Wisconsin requires a standard compensation ratio of 1.5:1, but a ratio of 1:1 might be allowed in some instances where an established mitigation bank is used.[28]

D. Mitigation Plans

To help improve mitigation success, detailed mitigation plans should be required for all permits. As discussed in Chapter 2, a detailed mitigation plan is statutorily required for all Corps projects with more than minimal impacts. 33 U.S.C. § 2283(d).

A mitigation plan should require that mitigation: (1) be carried out before or at the same time as project construction (unless it is physically impossible to do so because the mitigation will be directly on the construction site in which case it should be carried out a soon as possible); (2) be as close as possible to the destroyed aquatic habitat; and (3) consist of the same functional type (or more endangered type) of aquatic habitat. The plan also should explain how the proposed mitigation would replace the wetland and other aquatic habitat acres and functions lost to the proposed activity.

The mitigation plan should include:

- Details on when, where, and how the mitigation will be carried out;
- A comprehensive grading, planting, and long-term maintenance plan;
- Assurance of long-term maintenance such as a requirement to obtain a financial bond to ensure the availability of funding for maintenance activities;
- An easement or other conveyance of property rights to ensure that future development will not occur at the mitigation site;
- Assurance of adequate water rights (where applicable) to maintain the mitigation site;
- Stringent and enforceable ecological success criteria;
- A detailed monitoring plan that will allow monitoring documents to be made available to interested parties; and
- A contingency plan to be implimented if monitoring shows that the original plan is not successful.

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The plan should be based on the guidelines for creating and restoring ecologically self-sustaining wetlands established by the National Research Council (as recommended by RGL 02-02).[29] Among other things, these guidelines recommend that mitigation plans should:

- Choose wetland restoration over creation whenever possible;
- Carefully choose the location of the mitigation site in an area that: is similar to the setting of the wetland destroyed, includes proper elevation and topographic variations to ensure that the right amount of water will be available at the right time, can utilize natural hydrologic processes, is resistant to future disturbances, and is not already in a seriously degraded or disturbed condition or surrounded by extensive development that will reduce the ability of the mitigation site to function naturally;
- Utilize naturally variable hydrology, rather than using active engineering devices to attempt to mimic natural hydrology;
- Pay careful attention to subsurface conditions, groundwater quality and quantity, and proper planting elevation, depth, soil type, and seasonal timing;
- Minimize maintenance and manipulation requirements; and
- Include long term and early monitoring to identify potential problems and direct corrective actions.

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Endnotes

1. 531 U.S. 159, 191 (2001).
2. EPA 404(c) vetoes: North Miami Landfill, FL (1981); M.A. Norden, Mobile, AL (1984); Bayou aux Carpes, LA (1985); Maybank, Jehossee Island, SC (1985); Attleboro Mall/Sweeden's Swamp, MA (1986); Lake Alma Impoundment, GA (1988); Henry Rem Estate, East Everglades, FL (1988); Russo Development Corp., NJ (1988); Ware Creek Water Supply, VA (1989); Big River Water Supply, RI (1990); and Two Forks Water Supply, CO (1990).
3. Dahl, T.E. 2000. Status and trends of wetlands in the conterminous United States 1986 to 1997. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 82 pp., at http://wetlands.fws.gov/.
4. National Wildlife Federation, *Nowhere Near No-Net-Loss*, April 22, 2004.
5. U.S. Army Corps of Engineers, Draft Programmatic Environmental Impact Statement for the Nationwide Permit Program (July 2001) at 5-20 and Appendix F.
6. The following are some examples. According to EPA, the Yazoo Pumping Plant project in Mississippi will drain and damage 200,000 acres of ecologically significant wetlands. According to the Corps, construction of the New Madrid Levee and Pumping Plant in Missouri will destroy 75,000 acres of seasonally flooded wetlands. According to the Corps, its ongoing enlargement of the Mississippi River Mainline Levees will destroy a minimum of 7,328 acres of wetlands. According to the Corps, its plan to dredge over 100 miles of the Big Sunflower River in Mississippi will, among other things, damage 3,631 acres of wetlands.
7. For a list of vetoed projects, see endnote 2 above.
8. "Deep ripping" is a process where bulldozers drag rippers, consisting of 4-foot to 7-foot metal prongs, through the earth. This practice breaks up the soil, and disgorges rock, sand, and biological material behind the ripper. Deep ripping alters the movement of surface and subsurface water and limits or destroys the ability of wetlands to retain water.
9. *Conant v. United States*, 786 F.2d 1008 (11th Cir. 1986).
10. *National Wildlife Federation v. Marsh*, 568 F. Supp. 985, 994-95 (D.D.C. 1983).
11. The Corps' regulations provide specific examples of many wetland functions that are important to the public interest. These include significant biological functions, including food chain production, general habitat, nesting, spawning and rearing areas; drainage, sedimentation and flushing functions; shielding of other areas from wave action; storage areas for storm and flood waters; ground water discharge areas; and water purification functions. 33 C.F.R. § 320.4(b)(2). The Corps' regulations further recognize that the cumulative effects of piecemeal wetland losses can result in a major impairment of wetland resources. 33 C.F.R. § 320.4(b)(3).
12. R. Eugene Turner, et al., "Count It by Acre or Function—Mitigation Adds Up to Net Loss of Wetlands", National Wetlands Newsletter, November-December 2001. A 1996 study published in Ecological Applications concludes that the: "sober reality [is] that under present mitigation policies and practices 'losses are likely to be uncompensated for and that what we call mitigation has a high chance of failure.'" Margaret S. Race and Mark S. Fonseca, Fixing Compensatory Mitigation: What Will It Take?, in Ecological Applications 6(1):94-101 at 97 (Ecological Society of America, eds., 1996).
13. National Research Council, *Restoration of Aquatic Ecosystems: Science, Technology, and Public Policy* (National Academy Press 1992) at 310-311.
14. In 2001, the National Research Council concluded that "[t]he goal of no net loss of wetlands is not being met for wetland functions by the mitigation program, despite progress in the last 20 years." National Research Council, *Compensating for Wetland Losses Under the Clean Water Act*, June 2001, at 2.
15. For example, EPA Region 4 recommends mitigation ratios of from 2:1 to 60:1 as a guide in determining the appropriate amount of mitigation to be carried out – Restoration 2:1; Enhancement 4:1; Creation 6:1; Preservation 10:1 to 60:1. *Compensatory Mitigation Policy,* Wetlands Section, Water Management Division, Environmental Protection Agency Region 4 (January 16, 2001). EPA Region 4 covers Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.
16. *California Wetlands Conservation Policy* (established by Executive Order W-59-93).
17. California Coastal Commission, *Procedural Guidance For The Review Of Wetland Projects In California's Coastal Zone*, Chapter 2.
18. www.dep.state.fl.us/water/mines/docs/BOR_08_00.pdf.
19. www.cbbel-in.com/cbbelwetland/mitigation.htm.
20. www.michigan.gov/deq/0,1607,7-135-3313_3687-86447--,00.html.
21. Minnesota Regulation 8420.0546, http://www.bwsr.state.mn.us/wetlands/publications/MNRegulations.pdf.
22. Ohio Administrative Code 3745-1-54(F)(1).
23. www.oregonstatelands.us/fact6.pdf.
24. www.cicacenter.org/swift2.cfm?st=PA.
25. www.cicacenter.org/swift2.cfm?st=RI.
26. www.deq.state.va.us/wetlands/mitigate.html.
27. www.ecy.wa.gov/pubs/0406013a.pdf.
28. www.dnr.state.wi.us/org/es/science/publications/wetland_mitig.pdf.
29. National Research Council, *Compensating for Wetland Losses Under The Clean Water Act*, June 2001, at Chapter 7 Operational Guidelines for Creating or Restoring Self-Sustaining Wetlands, pp. 123-128.

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