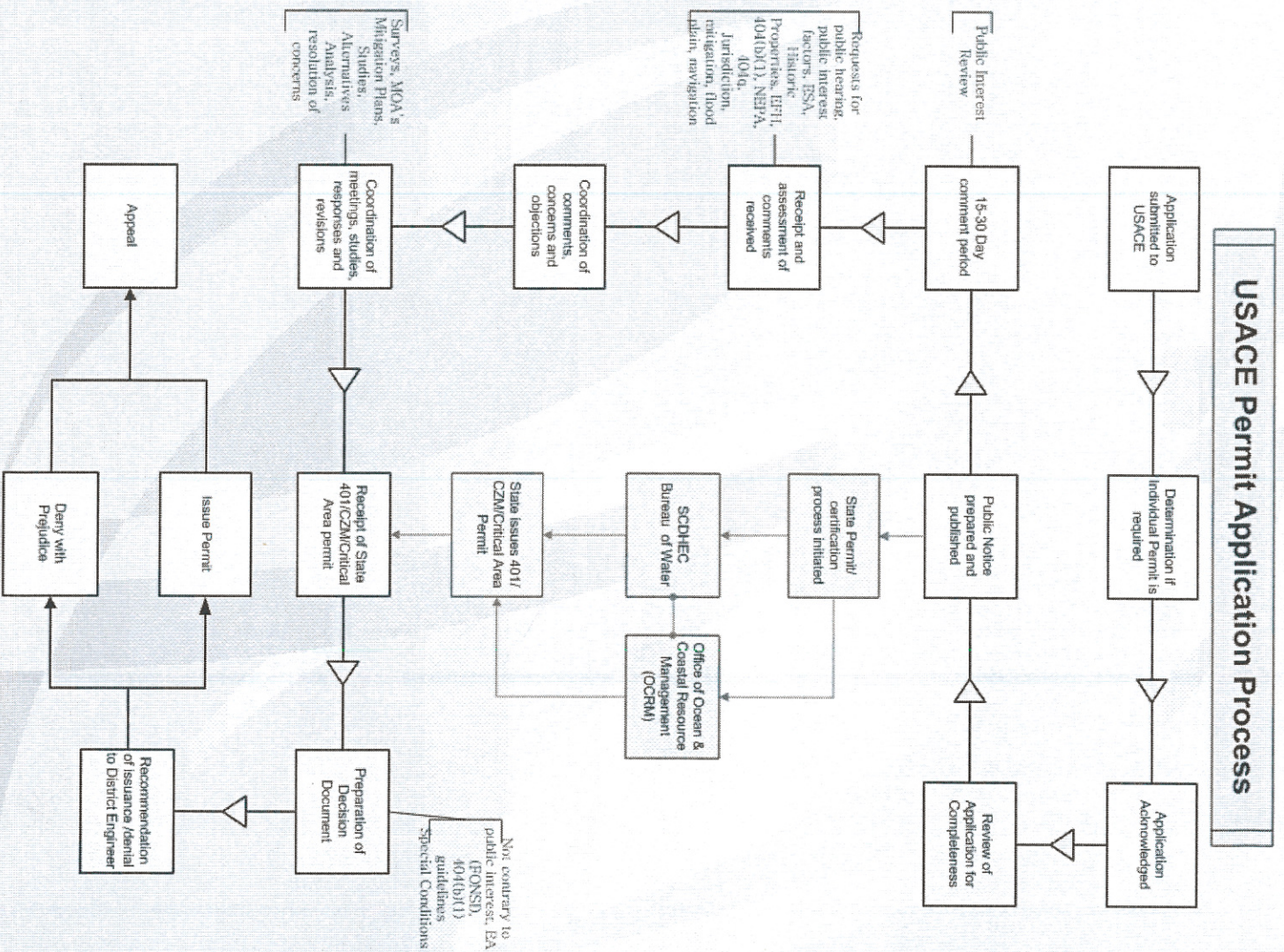


PERMIT PROCESS FLOW CHART

(see handout)





Wetland Regulatory Authority

Regulatory Requirements

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g. certain farming and forestry activities).

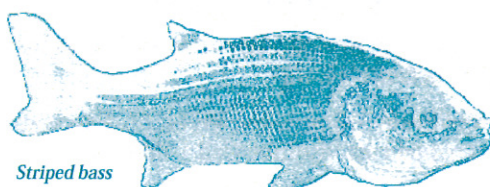


Wetlands subject to Clean Water Act Section 404 are defined as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The basic premise of the program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation's waters would be significantly degraded. In other words, when you apply for a permit, you must show that you have, to the extent practicable:

- Taken steps to avoid wetland impacts;
- Minimized potential impacts on wetlands; and
- Provided compensation for any remaining unavoidable impacts.

Proposed activities are regulated through a permit review process. An *individual permit* is required for potentially significant impacts. Individual permits are reviewed by the U.S. Army Corps of Engineers, which evaluates applications under a public interest review, as well as the environmental criteria set forth in the CWA Section 404(b)(1) Guidelines. However, for most discharges that will have only minimal adverse effects, a *general permit* may be suitable. General permits are issued on a nationwide, regional, or State basis for particular categories of activities. The general permit process eliminates individual review and allows certain activities to proceed with little or no delay, provided that the general or specific conditions for the general permit are met. For example,



Striped bass

minor road activities, utility line backfill, and bedding are activities that can be considered for a general permit. States also have a role in Section 404 decisions, through State program general permits, water quality certification, or program assumption.

Agency Roles and Responsibilities

The roles and responsibilities of the Federal resource agencies differ in scope.

U.S. Army Corps of Engineers:

- Administers day-to-day program, including individual and general permit decisions;
- Conducts or verifies jurisdictional determinations;
- Develops policy and guidance; and
- Enforces Section 404 provisions.

U.S. Environmental Protection Agency:

- Develops and interprets policy, guidance and environmental criteria used in evaluating permit applications;
- Determines scope of geographic jurisdiction and applicability of exemptions;
- Approves and oversees State and Tribal assumption;
- Reviews and comments on individual permit applications;
- Has authority to prohibit, deny, or restrict the use of any defined area as a disposal site (Section 404(c));
- Can elevate specific cases (Section 404(q));
- Enforces Section 404 provisions.

U.S. Fish and Wildlife Service and National Marine Fisheries Service:

- Evaluates impacts on fish and wildlife of all new Federal projects and Federally permitted projects, including projects subject to the requirements of Section 404 (pursuant to the Fish and Wildlife Coordination Act); and
- Elevates specific cases or policy issues pursuant to Section 404(q).

Manual for Identifying Wetlands

The U.S. EPA and U.S. Army Corps of Engineers use the 1987 *Corps of Engineers Wetlands Delineation Manual* to identify wetlands for the CWA Section 404 permit program. The 1987 manual organizes the environmental characteristics of a potential wetland into three categories: soils, vegetation, and hydrology. The manual contains criteria for each category. Using

this approach, an area that meets all three criteria is considered a wetland.

Wetlands on Agricultural Lands

Farmers who own or manage wetlands are directly affected by two important Federal programs—Section 404 of the CWA and the Swampbuster provision of the Food Security Act. The Swampbuster provision withholds certain Federal farm program benefits from farmers who convert or modify wetlands. The U.S. EPA, U.S. Army Corps of Engineers, U.S. Department of Agriculture, and U.S. Fish and Wildlife Service have established procedures to ensure consistency between the programs. Many normal farming practices are exempt from Section 404.



Water lilies

The Wetland Fact Sheet Series

EPA843-F-04-001
Office of Water

Wetlands Overview
Types of Wetlands
Threats to Wetlands
Wetland Restoration
Funding Wetland Projects

Functions and Values of Wetlands
Teaching About Wetlands
Wetland Regulatory Authority
Wetlands Compensatory Mitigation
Benefits of Wetland Monitoring

For more information, call EPA's Wetlands Helpline at 1-800-832-7828

Wetland Resources

On the Internet

- EPA's Wetlands Website www.epa.gov/owow/wetlands/regs/
- Section 404 of the Clean Water Act www.epa.gov/owow/wetlands/laws/
- Wetland Delineation Manual www.wes.army.mil/el/wetlands/wlpubs.html
- U.S. Army Corps of Engineers Regulatory Program..... www.usace.army.mil/inet/functions/cw/cecwo/reg/
- U.S. Army Corps of Engineers' Waterways
Experiment Station Environmental Laboratory www.wes.army.mil/el/wetlands/wetlands.html
- Environmental Law Institute www.eli.org

In Print

- America's Wetlands: Our Vital Link Between Land and Water.* For a copy, order from EPA's publications web site at <http://yosemite.epa.gov/water/owrcatalog.nsf> or call the EPA Wetlands Helpline at 1-800-832-7828.
- Wetlands Deskbook*, 2nd Edition, Margaret N. Strand. Available from the Environmental Law Institute. Call 1-800-433-5120; fax your request to (202) 939-3868; or e-mail to orders@eli.org.
- Our National Wetland Heritage: A Protection Guide*, 2nd Edition, Jon A. Kusler, Ph.D., Executive Director, Association of State Wetland Managers. Available from the Environmental Law Institute. Call 1-800-433-5120; fax your request to (202) 939-3868; or e-mail to orders@eli.org.

Wetlands Compensatory Mitigation Rule

On March 31, 2008, the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (the Corps) announced innovative new standards to promote no net loss of wetlands by improving wetland restoration and protection policies, increasing the effective use of wetland mitigation banks and strengthening the requirements for the use of in-lieu fee mitigation. These new wetlands compensatory mitigation standards emphasize best available science, promote innovation and focus on results. This rule follows the recommendations of the National Research Council by establishing equivalent, effective standards for all forms of wetland replacement projects under the Clean Water Act.



Emphasize Best Available Science

The new standards clearly affirm the requirement to adhere to the “mitigation sequence” of “avoid, minimize and compensate”: anyone wishing to obtain a permit to impact a wetland or other aquatic resource must first *avoid* and *minimize* impacts, and then *compensate* for unavoidable impacts. The rule’s emphasis on avoiding impacts to wetlands and other water resources recognizes that despite progress over the last two decades there are still large gaps in the science of restoration ecology. The National Research Council (NRC) and others in the scientific community have stressed that, in light of continued uncertainty associated with the successful replacement of many types of wetlands, the first step should always be to avoid impacting these important aquatic resources if possible. For unavoidable impacts, the rule incorporates key NRC recommendations associated with improving the planning, implementation and management of wetland replacement projects provided in the NRC’s 2001 assessment of wetland replacement practices. Specifically, the rule:

- Emphasizes that the process of selecting a location for compensation sites should be driven by assessments of watershed needs and how specific wetland restoration and protection projects can best address those needs;
- Requires measurable and enforceable ecological performance standards for all types of compensation so that project success can be evaluated;
- Requires regular monitoring to document that compensation sites achieve ecological performance standards;
- Clearly specifies the components of a complete compensation plan based on the principles of aquatic ecosystem science; and
- Emphasizes the use of science-based assessment procedures to evaluate the extent of potential water resource impacts and the success of compensation measures.



Black-necked stilts in a restored seasonal wetland at the Plummer Creek Mitigation Bank in Newark, California

Wildlands, Inc.

What is a Wetland Mitigation Bank?

A wetland mitigation bank is a wetland area that has been restored and protected to provide compensation for impacts to wetlands. A mitigation bank may be created when a government agency, corporation, nonprofit organization or other potential bank sponsor undertakes wetland restoration and protection activities under a formal agreement with the Corps. This formal agreement describes the wetland area’s restoration plan and establishes the number of environmental credits the restoration work can potentially generate. Although most mitigation banks are designed to compensate only for impacts to various wetland types, in recent years banks have been developed to compensate specifically for impacts to streams.

Promote Innovation

The new standards encourage the expansion of mitigation banking, a reliable and verifiable market-based method of wetland and water resource replacement. The standards accomplish this by:

- Creating a flexible preference for the use of mitigation bank credits to satisfy requirements for wetlands compensatory mitigation, since banks can help reduce many of the risks and uncertainties associated with compensatory mitigation;
- Simplifying the process for using existing mitigation banks by clearly stating that approved banks are able to compensate for all permitted impacts; and
- Making the process of establishing a mitigation bank more predictable by establishing disciplined timelines for the review of bank proposals.

The new standards' emphasis on the use of watershed assessments to identify priority wetland restoration and protection projects will encourage federal, state, tribal and local planning efforts. This, in turn, will result in faster and more effective compensation within the context of local or regional watershed needs.

Focus on Results

In order to ensure successful resource replacement projects, the standards establish sound and enforceable administrative requirements for all types of compensation projects concerning:

- Real estate instruments that protect the site;
- Financial assurances for near- and long-term site stewardship;
- Monitoring and contingency planning; and
- Identification of parties responsible for project tasks.

The new standards also expand and strengthen public participation in decisions regarding resource restoration and protection efforts. They require the inclusion of information in public notices describing how impacts will be avoided, minimized and compensated for. Furthermore, all proposed mitigation banks and in-lieu fee programs will receive public notice and comment. The new standards will improve accountability for replacement projects conducted by the regulated community by encouraging "performance-based" forms of wetland replacement such as mitigation banking. Unlike traditional forms of wetland replacement, the wetland restoration credits generated by banks are tied to demonstrated achievement of project goals. Most importantly, the new rule will hold all mitigation providers to the same effective standards so that providers of high-quality wetland replacement projects are not at a competitive disadvantage to others being held to lower standards.

Background

Wetlands and other aquatic resources play an important role in the environmental landscape. Those who intend to dredge or deposit fill in wetlands or other waters of the U.S. must apply for a permit from the Corps (or EPA-approved State) under the Clean Water Act. Consistent with the wetland program's goal of "no net loss of wetlands," these permits often require compensatory mitigation – typically, the restoration of former (historically degraded) wetlands to mitigate the effects of wetland loss.

Wetlands provide numerous beneficial functions including protecting and improving water quality, providing fish and wildlife habitat, storing floodwaters, reducing damages associated with storm surges such as those caused by hurricanes and recharging underground sources of drinking water.

Selected References

For more information regarding compensatory mitigation and to download a copy of the new standards, see <http://www.epa.gov/wetlandsmitigation>

Corps Regulatory Program: <http://www.usace.army.mil/inet/functions/cw/cecwo/reg>

National Academy of Sciences. Compensating for Wetland Losses Under the Clean Water Act. 2001. National Academy Press. Washington, D.C. Available at <http://www.nap.edu/>

Wetlands Compensatory Mitigation

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Toward achievement of this goal, the CWA prohibits the discharge of dredged or fill material into waters of the United States unless a permit issued by the Army Corps of Engineers or approved State under CWA Section 404 authorizes such a discharge.

For every authorized discharge, the adverse impacts to wetlands, streams and other aquatic resources must be avoided and minimized to the extent practicable. For unavoidable impacts, **compensatory mitigation** is required to replace the loss of wetland and aquatic resource functions in the watershed. Compensatory mitigation refers to the restoration, establishment, enhancement, or in certain circumstances preservation of wetlands, streams or other aquatic resources for the purpose of offsetting unavoidable adverse impacts.



The Mitigation Sequence

Compensatory mitigation is actually the third step in a sequence of actions that must be followed to offset impacts to aquatic resources. The 1990 Memorandum of Agreement (MOA) between the Environmental Protection Agency (EPA) and the Department of Army establishes a three-part process, known as the mitigation sequence to help guide mitigation decisions and determine the type and level of mitigation required under Clean Water Act Section 404 regulations.

Step 1. Avoid - Adverse impacts to aquatic resources are to be avoided and no discharge shall be permitted if there is a practicable alternative with less adverse impact.

Step 2. Minimize - If impacts cannot be avoided, appropriate and practicable steps to minimize adverse impacts must be taken.

Step 3. Compensate - Appropriate and practicable **compensatory mitigation** is required for unavoidable adverse impacts which remain. The amount and quality of compensatory mitigation may not substitute for avoiding and minimizing impacts.



The American Crocodile, a Federal Endangered Species, makes its home in the Everglades Mitigation Bank.

Photo by James Valentine

Methods of Compensatory Mitigation:

Even after avoiding and minimizing impacts, projects that will cause adverse impacts to wetlands, streams and other aquatic resources typically require some type of compensatory mitigation. The Army Corps of Engineers (or approved state authority) is responsible for determining the appropriate form and amount of compensatory mitigation required. Methods of compensatory mitigation include restoration, establishment, enhancement and preservation.

- **Restoration:** Re-establishment or rehabilitation of a wetland or other aquatic resource with the goal of returning natural or historic functions and characteristics to a former or degraded wetland. Restoration may result in a gain in wetland function or wetland acres, or both.
- **Establishment (Creation):** The development of a wetland or other aquatic resource where a wetland did not previously exist through manipulation of the physical, chemical and/or biological characteristics of the site. Successful establishment results in a net gain in wetland acres and function.
- **Enhancement:** Activities conducted within existing wetlands that heighten, intensify, or improve one or more wetland functions. Enhancement is often undertaken for a specific purpose such as to improve water quality, flood water retention or wildlife habitat. Enhancement results in a gain in wetland function, but does not result in a net gain in wetland acres.
- **Preservation:** The permanent protection of ecologically important wetlands or other aquatic resources through the implementation of appropriate legal and physical mechanisms (i.e. conservation easements, title transfers). Preservation may include protection of upland areas adjacent to wetlands as necessary to ensure protection or enhancement of the aquatic ecosystem. Preservation does not result in a net gain of wetland acres and may only be used in certain circumstances, including when the resources to be preserved contribute significantly to the ecological sustainability of the watershed.

Source: *Compensatory Mitigation for Losses of Aquatic Resources*, 40 CFR Part 230 Subpart J and 33 CFR Part 332.

Mechanisms for Compensatory Mitigation:

Compensatory mitigation for unavoidable wetland impacts may be accomplished through three distinct mechanisms. With permittee-responsible mitigation, the permittee maintains liability for the construction and long-term success of the site. Mitigation banking and in-lieu fee mitigation are forms of "third party" compensation, where the liability for project success is transferred to the mitigation bank or in-lieu fee sponsor.

- **Permittee-Responsible Mitigation:** Restoration, establishment, enhancement or preservation of wetlands undertaken by a permittee in order to compensate for wetland impacts resulting from a specific project. The permittee performs the mitigation after the permit is issued and is ultimately responsible for implementation and success of the mitigation. Permittee-responsible mitigation may occur at the site of the permitted impacts or at an off-site location within the same watershed.
- **Mitigation Banking:** A wetlands mitigation bank is a wetland area that has been restored, established, enhanced or preserved, which is then set aside to compensate for future conversions of wetlands for development activities. Permittees, upon approval of regulatory agencies, can purchase credits from a mitigation bank to meet their requirements for compensatory mitigation. The value of these "credits" is determined by quantifying the wetland functions or acres restored or created. The bank sponsor is ultimately responsible for the success of the project. Mitigation banking is performed "off-site," meaning it is at a location not on or immediately adjacent to the site of impacts, but within the same watershed. Federal regulations establish a flexible preference for using credits from a mitigation bank over the other compensation mechanisms.
- **In-Lieu Fee Mitigation:** Mitigation that occurs when a permittee provides funds to an in-lieu-fee sponsor (a public agency or non-profit organization). Usually, the sponsor collects funds from multiple permittees in order to pool the financial resources necessary to build and maintain the mitigation site. The in-lieu fee sponsor is responsible for the success of the mitigation. Like banking, in-lieu fee mitigation is also "off-site," but unlike mitigation banking, it typically occurs after the permitted impacts.

EPA-843-F-08-002

Compensatory Mitigation Resources

Federal Wetlands Mitigation Regulations and Guidance

Available at: www.epa.gov/wetlandsmitigation/

Section 404(b)(1) Guidelines. In 1980, EPA finalized regulations that constitute the substantive environmental criteria used in evaluating activities regulated under Section 404 of the Clean Water Act.

Compensatory Mitigation for Losses of Aquatic Resources; Final Rule. In 2008, EPA and the U.S. Army Corps of Engineers, through a joint rulemaking, expanded the Section 404(b)(1) Guidelines to include comprehensive standards for all three mechanisms for providing compensatory mitigation.

1990 Memorandum Of Agreement (MOA) Between The Department of the Army and The Environmental Protection Agency. This MOA contains the policy and procedures to be used in determining the type and level of mitigation necessary to demonstrate compliance with the Section 404(b)(1) Guidelines. (Portions of this MOA that concern the type and location of compensatory mitigation are superseded by the above 2008 rule.)

Recent Evaluations of Wetlands Compensatory Mitigation

The Status and Character of In-Lieu Fee Mitigation in the United States. 2006. Environmental Law Institute, Washington, D.C. Available at www.eli.org

2005 Status Report on Compensatory Mitigation in the United States. 2006. Environmental Law Institute, Washington, D.C. Available at www.eli.org

Corps of Engineers Does Not Have an Effective Oversight Approach to Ensure That Compensatory Mitigation Is Occurring. 2005. U.S. Government Accountability Office Report GAO-05-898, Washington, D.C. Available at www.gao.gov

BANKS AND FEES: The Status of Off-Site Wetland Mitigation in the United States. 2002. Environmental Law Institute, Washington, D.C. Available at www.eli.org

Stakeholder Forum on Federal Wetlands Mitigation. 2001-2006. Environmental Law Institute, Washington, D.C. Available at www.eli.org

National Academy of Sciences. *Compensating for Wetland Losses Under the Clean Water Act.* 2001. National Academy Press, Washington, D.C. Available at www.nap.edu

Wetlands Protection: Assessments Needed to Determine Effectiveness of In-Lieu-Fee Mitigation. 2001. U.S. General Accounting Office Report GAO-01-325. Washington, D.C. Available at www.gao.gov

Mitigation Banking Factsheet

Compensating for Impacts to Wetlands and Streams

What is a Mitigation Bank?

A mitigation bank is a wetland, stream, or other aquatic resource area that has been restored, established, enhanced, or (in certain circumstances) preserved for the purpose of providing compensation for unavoidable impacts to aquatic resources permitted under Section 404 or a similar state or local wetland regulation.¹ A mitigation bank may be created when a government agency, corporation, nonprofit organization, or other entity undertakes these activities under a formal agreement with a regulatory agency. Mitigation banks have four distinct components:



Restored perennial and season marsh and riparian forest at Wildlands Mitigation Bank, Placer County, California

- The bank site: the physical acreage restored, established, enhanced, or preserved;
- The bank instrument: the formal agreement between the bank owners and regulators establishing liability, performance standards, management and monitoring requirements, and the terms of bank credit approval;
- The Interagency Review Team (IRT): the interagency team that provides regulatory review, approval, and oversight of the bank; and
- The service area: the geographic area in which permitted impacts can be compensated for at a given bank.

The value of a bank is defined in "compensatory mitigation credits." A bank's instrument identifies the number of credits available for sale and requires the use of ecological assessment techniques to certify that those credits provide the required ecological functions. Although most mitigation banks are designed to compensate only for impacts to various wetland types, some banks have been developed to compensate specifically for impacts to streams (i.e., stream mitigation banks).

Mitigation banks are a form of "third-party" compensatory mitigation, in which the responsibility for compensatory mitigation implementation and success is assumed by a party other than the permittee. This transfer of liability has been a very attractive feature for Section 404 permit-holders, who would otherwise be responsible for the design, construction, monitoring, ecological success, and long-term protection of the site.

Background

Guidance from U.S. Fish and Wildlife Service (FWS) in 1983 supported the establishment of the first banks, most of which were sites of advanced consolidated compensatory mitigation for impacts planned by state Departments of Transportation or other state agencies.² The subsequent expansion of mitigation banking was catalyzed by the release of several important reports that challenged the effectiveness of compensatory mitigation practices under the Section 404 program, particularly on-site and single-project off-site compensatory mitigation.³ EPA and the Corps, the primary federal agencies responsible for implementing the federal Section 404 program, began to view banking as a

way of addressing these shortcomings of mitigation policy and in response issued interim Banking Guidance in 1993. Mitigation banking programs were well-positioned to address many of these issues by providing for easier monitoring, long-term stewardship, and unambiguous transfer of liability for assuring mitigation success from the permittee to the banker. The promise of regulatory simplification for permit applicants that use a bank to satisfy permit conditions has also spurred activity in mitigation banking. In addition, language supporting the development of banking was included in the White House Office of Environmental Policy's 1993 Federal Wetlands Plan as well as in the Intermodal Surface Transportation Equity Act of 1993.

In November 1995, EPA, the Corps, FWS, National Oceanic and Atmospheric Administration's National Marine Fisheries Service, and U.S. Department of Agriculture's Natural Resources Conservation Service released the final Federal Guidance on the Establishment, Use, and Operation of Mitigation Banks.⁴ The guidance gave state agencies, local governments, and the private sector the regulatory certainty and procedural framework they needed to move forward on seeking approval to operate mitigation banks. Following its issuance, banks proliferated across the country and became a mainstream compensatory mitigation option.⁵ With the passage of the Transportation Equity Act for the 21st Century (TEA-21) in 1998, banking became the preferred compensatory mitigation alternative for impacts involving the federal funding of transportation projects.⁶ Since 1998, conferences have been held annually devoted to sharing and encouraging advances in mitigation banking policy and practice.⁷

Elevated interest in banking has spurred many Corps Districts to adopt regional guidance regulating banking, and to date approximately 15 of the 38 Districts have done so. Also, by 2001, 23 states had either statutes or regulations in place that authorized the use of mitigation banks and an additional eight states had issued guidelines to govern the use of mitigation banks.⁸

In response to comprehensive and independent critiques of the effectiveness of compensatory mitigation at offsetting impacts to wetlands and other aquatic resources under Section 404, EPA, the Corps, and the Departments of Agriculture, Commerce, Interior, and Transportation released the National Wetlands Mitigation Action Plan on December 26, 2002.⁹ The Plan includes 17 action items designed to improve the ecological performance and results of all forms of compensatory mitigation, including banking. Approximately half of these 17 action items have been implemented while the remaining items are currently under development.

In 2004, the Society of Wetland Scientists [EXIT Disclaimer](#) released a position paper describing mitigation banking as a sound mechanism which can improve compensatory mitigation success and contribute to the goal of no net loss of wetlands and other aquatic resources.¹⁰ Nevertheless, there continues to be a need to improve and refine the practices of site selection, design, implementation, monitoring, and long-term management for all compensatory mitigation projects, including mitigation banks.¹¹

The Water Resources Development Act (WRDA) of 2007 identifies mitigation banking as the preferred mechanism for offsetting unavoidable wetland impacts associated with Corps Civil Works projects. Section 2036 of the Act states that "In carrying out a water resources project that involves wetlands mitigation and that has impacts that occur within the service area of a mitigation bank, the Secretary [of the Army], where appropriate, shall first consider the use of the mitigation bank if the bank contains sufficient available credits to offset the impact."

In 2008, EPA and the Corps issued revised regulations governing compensatory mitigation.¹² These regulations established equivalent and effective standards for all three compensatory mitigation mechanisms: mitigation banks, in-lieu fee mitigation, and permittee-responsible mitigation. Since mitigation banking is the most reliable form of compensatory mitigation, these regulations establish a preference for the use of banks when appropriate credits are available.

Status of Mitigation Banking



Restored marsh preserve at the Pope Ranch Conservation Bank in the Yolo Bypass near Davis, California

In 1992 there were only 46 banks permitted, almost all of which were publicly-sponsored single-user banks, in which entities such as state agencies or large corporations stockpile wetland credits for their own later use. The first entrepreneurial banks to sell credits to any permittee were developed between 1991 and 1994. By the end of 2001, the Environmental Law Institute (ELI) had identified approximately 219 approved wetland mitigation banks nationwide, more than 130 of which were entrepreneurial banks, and 22 of which had sold out of credits. This represented a 376% increase in the number of banks over 10 years, nearly all of which occurred following the release of the 1995 Banking Guidance. An estimated 139,000 acres were included in the 219 approved banks that provide a combination of wetland restoration, creation, enhancement,

and/or preservation. ELI also identified an additional 95 banks under review with approval pending as of December 2001. The 95 banks under review at that time included an additional 8,000 acres. ELI also listed 40 approved "umbrella banks" (i.e., banks developing multiple compensation sites under a single instrument) with approximately 26,848 acres of mitigation wetlands approved at 308 individual sites.¹³

A 2005 inventory by the Corps' Institute for Water Resources estimates a total of 450 approved mitigation banks (59 of which have sold out of credits) and an additional 198 banks in the proposal stage. Since this survey counted umbrella banks as a single bank, the number of bank sites is likely considerably larger than this estimate.

Benefits of Mitigation Banking

Mitigation banking has a number of advantages over traditional permittee-responsible compensatory mitigation because of the ability of mitigation banking programs to:

- Reduce uncertainty over whether the compensatory mitigation will be successful in offsetting project impacts;
- Assemble and apply extensive financial resources, planning, and scientific expertise not always available to many permittee-responsible compensatory mitigation proposals;
- Reduce permit processing times and provide more cost-effective compensatory mitigation opportunities; and
- Enable the efficient use of limited agency resources in the review and compliance monitoring of compensatory mitigation projects because of consolidation.

In its 2001 critique of compensatory mitigation, the [National Research Council \(NRC\)](#) [EXIT Disclaimer](#) concluded that third-party compensatory mitigation such as mitigation banks offer advantages over permittee-responsible mitigation in the fulfillment of regulatory goals.¹⁴ One such advantage identified by NRC is the consensus-driven, interagency review process used to approve banks.¹⁵ The 2002 National Mitigation Action Plan acknowledges that more expertise and collaboration should be brought to bear on the Section 404 mitigation process. The 2008 Corps/EPA compensatory mitigation regulations codify the consensus-based interagency review team approach endorsed by

the NRC. NRC also noted that banks are more likely than traditional compensatory mitigation to achieve desired long-term outcomes and to create mitigation sites that are protected in perpetuity by organizations dedicated to resource conservation.¹⁶

Additionally, banking represents an increasingly important economic component of the environmental consulting sector, showcasing the synergies that can arise between effective environmental protection and economic expansion. Sixty two percent of the banks identified in ELI's 2002 study were privately-owned entrepreneurial mitigation banks; entrepreneurial providers of bank credits have emerged as a nationally-organized industry¹⁷ contributing hundreds of millions of dollars annually to the domestic product.

