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Mitigation Banking Factsheet

Compensating for Impacts to Wetlands and Streams

What is a Mitigation Bank?



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

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:

- 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.

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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.

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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.

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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.

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Looking Ahead



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

EPA looks forward to working with the Corps and our other partners on continuing to improve mitigation banking's effectiveness at offsetting authorized impacts to wetlands, streams, and other aquatic resources. Improving IRT training, increasing mitigation bank tracking and monitoring, and expanding the evaluation of bank performance are a few of the areas the EPA plans to focus on in the coming years.

Related Links

- [Federal Compensatory Mitigation Regulations](#)

- [EPA mitigation website](#)
- [Corps Regulatory Program website](#)
- [National Mitigation Action Plan](#)
- [2001 National Research Council Compensatory Mitigation Study](#)
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- [Environmental Law Institute Research on Compensatory Mitigation website](#) [EXIT Disclaimer](#)
- [Society of Wetland Scientists' Mitigation Banking Position Paper](#)
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- [National Mitigation Banking Association](#) [EXIT Disclaimer](#)
- [National Mitigation and Conservation Banking Conference](#)
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References

1. [EPA, Compensatory Mitigation Fact Sheet \(PDF\)](#) (2 pp, 288.4K, [About PDF](#))
2. U.S. Fish and Wildlife Service. 1983. U.S. Fish and Wildlife Service Interim Guidance on Mitigation Banking. ES Instruction Memorandum No. 80, June 23, 1983.
3. Eliot, Wendy. 1985. *Implementing Mitigation Policies in San Francisco Bay: A Critique*. Oakland, CA: California State Coastal Conservancy; Race, Margaret Seluk. 1985. Critique of Present Wetlands Mitigation Policies in the United States Based on an Analysis of Past Restoration Projects in San Francisco Bay. *Environmental Management* 9 (1): 71-82; Erwin, Kevin L. 1990. Wetland Evaluation for Restoration and Creation. In *Wetland Creation and Restoration: The Status of the Science*, edited by J. A. Kusler and M. E. Kentula. Washington, DC: Island Press.
4. [Federal Guidance for the Establishment, Use and Operation of Mitigation Banks](#)
5. [Environmental Law Institute, 2002. "Banks and Fees: the Status of Off-site Wetlands Mitigation in the United States," Environmental Law Institute, Washington, D.C.](#) [EXIT Disclaimer](#)
6. [TEA-21 Banking Preference Guidance \(PDF\)](#) (8 pp, 1.46MB, [About PDF](#))
7. [National Mitigation and Conservation Banking Conference](#)

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8. ELI, 2002.
9. [National Mitigation Action Plan](#)
10. [Society of Wetlands Scientists](#) [EXIT Disclaimer](#)
11. [National Research Council, 2001. "Compensating for Wetland Losses Under the Clean Water Act," National Academy Press, Washington, D.C.](#) [EXIT Disclaimer](#)
12. [Compensatory Mitigation for Losses of Aquatic Resources](#)
13. ELI, 2002.
14. NRC, 2001, p. 9.
15. NRC, 2001, pp. 82, 160-4.
16. NRC, 2001, p. 163.
17. [National Mitigation Banking Association](#) [EXIT Disclaimer](#)

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