



MAIN FINDINGS:

- During the Clean Water Act Section 404 permit process, impacts to jurisdictional wetlands and waters are avoided and minimized as much as possible.
- The number of approved mitigation banks and in-lieu fee programs has increased since 2008.
- After the 2008 rule was issued, there has been an increased focus on stream mitigation.
- Use of mitigation bank and in-lieu fee program credits to fulfill compensatory mitigation requirements has reduced permit processing times.
- Since 2008, there has been an increased reliance on mitigation bank and in-lieu fee program credits.

**The Mitigation Rule Retrospective:
A Review of the 2008 Regulations
Governing Compensatory Mitigation
for Losses of Aquatic Resources**

In 2008, the U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) issued regulations clarifying compensation requirements for impacts to wetlands, streams, and other aquatic resources authorized by permits issued under Section 404 of the Clean Water Act (CWA) and/or Section 10 of the Rivers and Harbors Act

(RHA) of 1899. The 2008 Mitigation Rule incorporates recommendations from the National Research Council for improving the planning, development, implementation, and performance of wetland compensatory mitigation projects, including the adoption of a Watershed Approach to guide compensatory mitigation project site selection and design, and establishes equivalent standards for aquatic resource compensatory mitigation projects. The report summarizes the progress made in implementing the 2008 Mitigation Rule, including analysis of trends in aquatic resource impacts and compensation from 2010 to 2014 and trends in mitigation banking and in-lieu-fee programs from the mid-1990s through 2014.

When compensatory mitigation is required to offset impacts to wetlands, streams or other aquatic resources authorized by a Corps permit, those compensation requirements may be satisfied by securing credits from an approved mitigation bank or in-lieu fee program or through a permittee-responsible compensation project (see inset). Banks and in-lieu fee programs are usually considered preferable to permittee-responsible mitigation as they involve such aspects as: consolidating compensatory mitigation projects where ecologically appropriate, using a watershed approach, providing a greater level of financial planning and scientific expertise, reducing temporal losses of functions, and reducing uncertainty over project success. A major component of the 2008 Mitigation Rule is the establishment of a preferential hierarchy of compensation mechanisms; mitigation banks are first given preference, followed by in-lieu fee programs, followed by permittee-responsible mitigation.

Compensatory mitigation means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

The primary sources of data used for the retrospective review are the Corps Regulatory Program’s automated information system, the Operations and Maintenance Business Information Link (OMBIL) Regulatory Module Version 2 (ORM2), and the Regulatory In-lieu Fee and Banking Information Tracking System (RIBITS). The agencies present Regulatory Program permit data from 2010 to 2014, including authorized impacts and required compensatory mitigation. The report also presents data on approved mitigation banks and in-lieu fee programs and the credits those mitigation providers are producing. The report summarizes the extensive training and outreach efforts

Mitigation bank: implemented by a bank sponsor to produce credits that can be sold or transferred to permittees.

In-lieu fee program: implemented by governmental/non-profit entity to produce credits that can be sold or transferred to permittees.

Permittee-responsible mitigation: implemented by permittee or his or her contractor.

conducted by the Corps and EPA to educate staff, mitigation providers, and other stakeholders on the 2008 Mitigation Rule; compiles the range of implementing guidance documents developed by Corps districts to support implementation of the 2008 Mitigation Rule; and analyzes trends in impact and compensation data since implementation of the 2008 Mitigation Rule.

The report finds that substantial progress has been made in implementation of the 2008 Mitigation Rule. Over the past five years, the Corps issued approximately 56,400 written authorizations per year under its permit authorities, approximately 10% of which required compensatory mitigation. This modest percentage reflects the fact that, during the review process managed by the Corps, permit applicants are required to avoid and minimize aquatic resource impacts to the maximum extent practicable prior to offering compensatory mitigation. When compensatory mitigation is required, the vast majority of compensatory mitigation is done to offset authorized wetland and stream impacts.

Key report findings indicate:

- **Impacts to jurisdictional wetlands and waters are avoided and minimized as much as possible during the permit application review process.** Permit applicants are required by the Corps to avoid and minimize impacts to jurisdictional waters and wetlands to the maximum practicable before a permit decision is made. Because of the stringent avoidance and minimization requirements, most permitted impacts to jurisdictional waters and wetlands fall below the thresholds established in the Corps' regulations for determining when compensatory mitigation should be required. A substantial majority of permitted impacts to jurisdictional waters and wetlands is less than 1/10-acre (Figure 1).

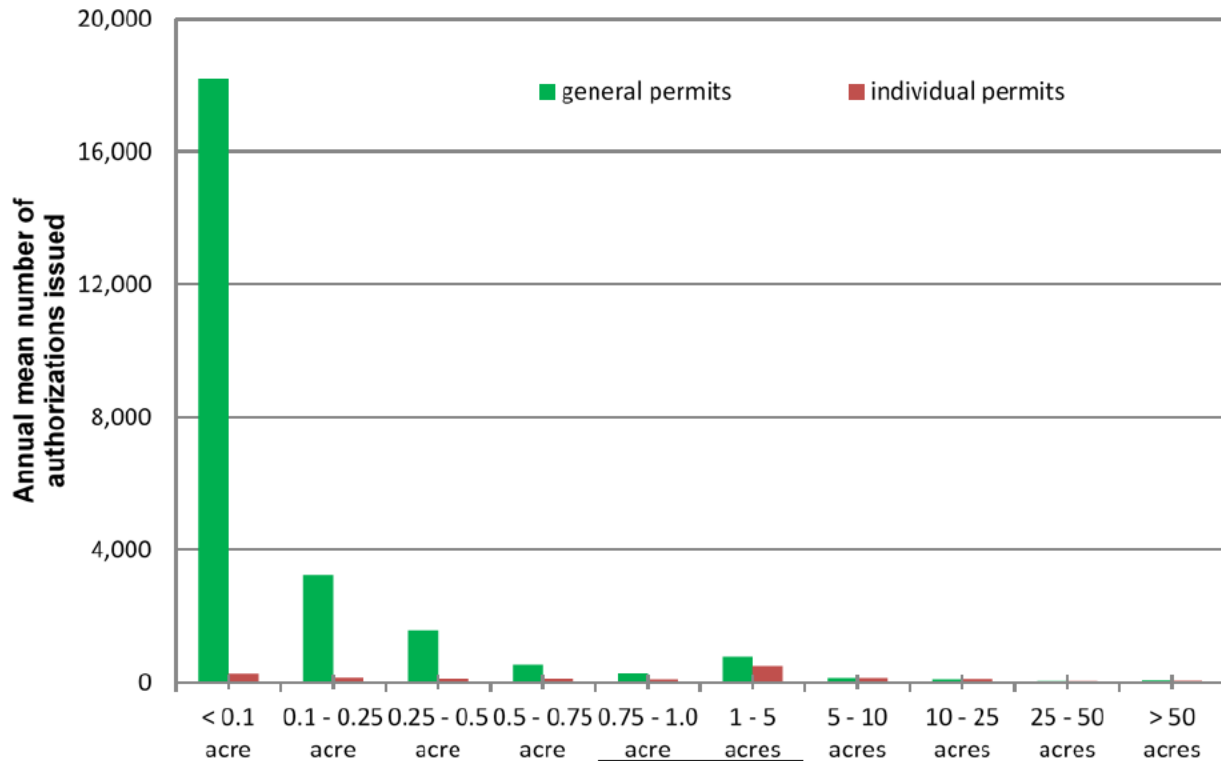


Figure 1. Mean annual number of authorizations, by acreage of authorized impacts, issued for discharges of dredged or fill material in waters of the United States for the period of 2010-2014. The acreage of authorized impacts includes permanent and temporary impacts.



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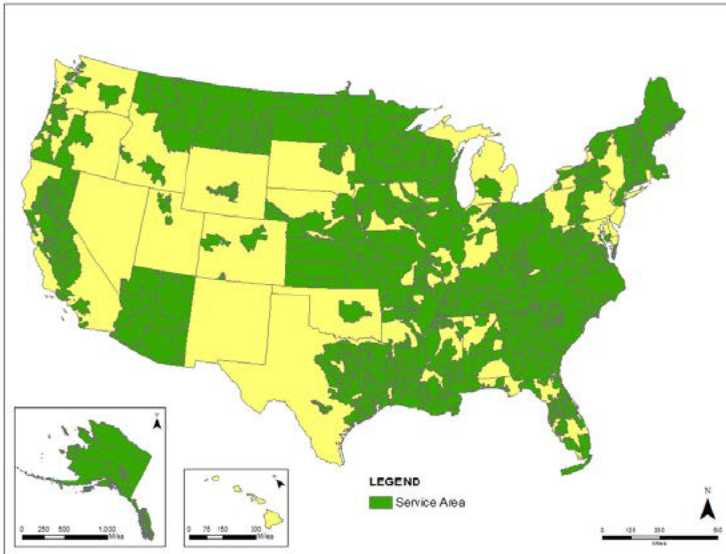


Figure 2. Service Areas for Corps-approved mitigation banks and in-lieu fee programs as of 2014. Areas depicted represent largest coverage service area approved. Data obtained from RIBITS database.

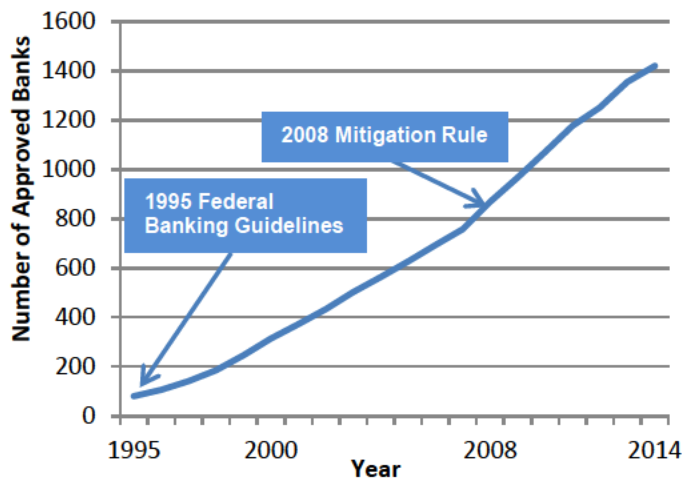


Figure 3. Cumulative total number of approved mitigation banks, from 1995 to 2014

- **Increase in number of mitigation banks and in-lieu fee programs.** The preferential hierarchy specified in the 2008 Mitigation Rule has resulted in a marked increase in the proportion of the country served by mitigation banks and in-lieu fee programs (Figure 2). There has been continued growth in the numbers of approved mitigation banks both in areas where mitigation banking was prevalent prior to the 2008 Mitigation Rule and in areas previously unserved by mitigation banks, driven largely by growth in private commercial mitigation banking (Figure 3).

Many new in-lieu fee programs have been approved to provide compensatory mitigation in many previously unserved areas. As of December 2014, there were 1,428 mitigation bank sites and 45 in-lieu fee programs approved by the Corps. Along with the increase in the number of banks and in-lieu fee programs, there has been a substantial increase in the amount of wetland and stream mitigation credits available for use as compensatory mitigation.

- **Increased focus on stream mitigation.** Over the past two decades there has been an increasing scientific understanding and recognition of the important functions and services streams perform in the landscape. Accordingly, after the 2008 Mitigation Rule was issued more Corps districts have expanded their requirements for compensatory mitigation to offset

unavoidable impacts to streams. This is reflected in the fact that the number of mitigation banks providing stream mitigation credits has more than doubled since 2008.

- Use of mitigation bank and in-lieu fee program credits can reduce permit processing times.** The Corps' permit data show that use of mitigation banks can reduce permit processing times, while permit processing times for projects that utilize permittee-responsible mitigation have been increasing. For authorized activities that required compensatory mitigation, permit processing times were fastest when mitigation bank credits (120 days) or in-lieu fee program credits (136 days) were the approved source of compensatory mitigation, compared to 177 days for on-site permittee-responsible mitigation and 243 days for off-site permittee-responsible mitigation (Figure 4).

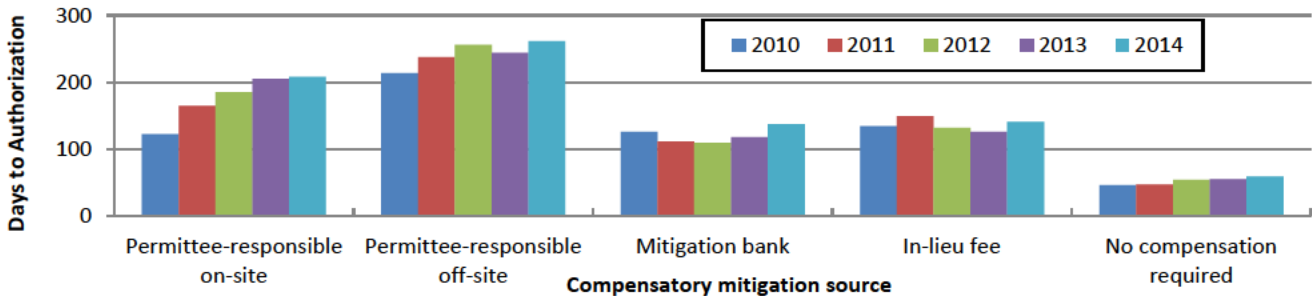


Figure 4. Average processing times for permit authorizations, by compensatory mitigation source, for 2010 to 2014.

- Increasing reliance on mitigation bank and in-lieu fee program credits.** The expansion of mitigation banks and in-lieu fee programs into previously unserved areas of the country, along with reduced permit processing times for projects utilizing these options, has resulted in an increasing proportion of projects using mitigation bank and in-lieu fee program credits as compensation. For those authorizations between 2010 and 2014 that required compensatory mitigation, 41% used mitigation bank credits, 11% used in-lieu fee program credits, 37% did on-site permittee-responsible mitigation, and 11% conducted off-site permittee-responsible mitigation (Figure 5).

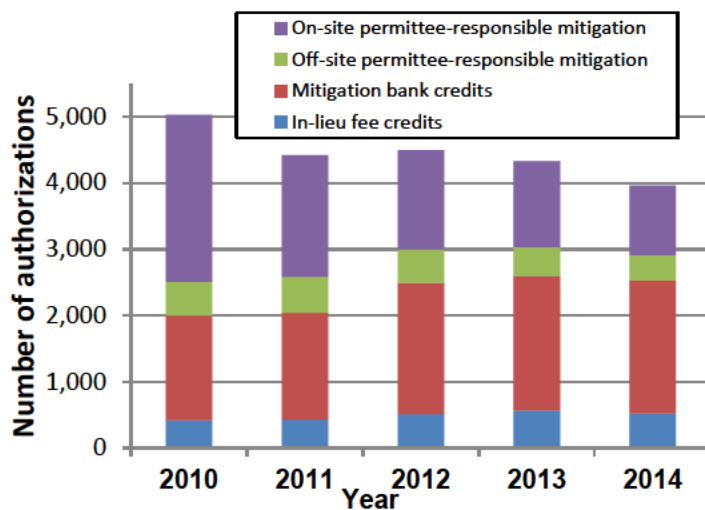


Figure 5. Number of all authorizations requiring compensatory mitigation, by mitigation source, from 2010-2014.

The Corps and EPA continue to strive to carry out the 2008 Mitigation Rule and have identified specific future steps to ensure effective implementation. The Corps and EPA will continue investment in education to all stakeholders (e.g., Interagency Review Teams, mitigation bank and in-lieu fee sponsors, and Federal field staff) and database enhancements to improve and expand upon existing capabilities. Corps districts will further refine and enhance guidelines to allow for greater applicability to their specific environment. This retrospective does not examine the ecological outcomes of aquatic resource compensatory mitigation

projects required through implementation of the 2008 Mitigation Rule; the agencies look forward to seeing the results of scientific studies that examine the ecological outcomes of aquatic resource restoration, enhancement, establishment, and preservation projects that were approved under the standards and requirements of the 2008 Mitigation Rule.