

**MITIGATION AND MONITORING GUIDELINES  
PHILADELPHIA DISTRICT  
REGULATORY PROGRAM  
U.S. ARMY CORPS OF ENGINEERS  
November 2004**

**I. Applicability:** These Guidelines should be considered with all Federal permit actions requiring compensatory mitigation for aquatic resource impacts under the Corps Regulatory Program pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899. This includes General Permits, Nationwide Permits (NWP), State Programmatic General Permits (Category III Activities), and Individual Permit (Standard Permit) actions. These Guidelines do not address mitigation for categories of effects other than ecological (e.g., historic, cultural, aesthetic, etc.)

These Guidelines will be periodically reviewed and modified as the National Mitigation Action Plan is implemented over the next 3-5 years and our knowledge base on mitigation increases. In addition to the requirements set forth herein, there may be other individual guidance provided by Federal or State agencies. The Corps will work closely with all appropriate State regulatory counterparts to reduce the likelihood of conflicting mitigation permit requirements. These Guidelines do not supercede existing Federal or State laws or regulations.

**II. Purpose:** The purpose of these Mitigation and Monitoring Guidelines (“Guidelines”) is to improve the overall success of compensatory mitigation proposals, to help applicants understand policies and requirements associated with compensatory mitigation for aquatic resource impacts, and to improve predictability and consistency. These recommendations are intended to be used by applicants, agents, and consultants as a guide for the development of compensatory mitigation plans as required to minimize adverse impacts to aquatic resources under the Corps Regulatory Program pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899. These are suggestions only that may not be suitable in every situation, and do not guarantee the success of a mitigation project or the acceptance of a mitigation plan for a given permit application.

It is important to note that the first element of mitigation is avoidance and minimization of impacts, and all mitigation proposals are evaluated on a case-by-case basis during review of permit applications in accordance with all relevant laws, regulations, and guidance. These guidelines are intended to provide a background level for the information that may be required in the permit evaluation process. The level of analysis and documentation of mitigation plans will continue to be commensurate with the scope of the proposed impacts to aquatic resources.

**III. Federal Mitigation Policy and Guidance**

- a) Environmental Protection Agency, Section 404(b)(1) Guidelines (40 CFR 230), Guidelines for Specification of Disposal sites for Dredged or Fill Material.
- b) Department of the Army, Section 404 Permit Regulations, Corps 1986 Consolidated Rule (33 CFR 320.4(r)).

- c) Council on Environmental Quality (CEQ) Mitigation Policy (40 CFR 1508.20) of CEQ's Implementing Regulations for National Environmental Policy Act (NEPA) and 40 Questions.
- d) 1990 Memorandum of Agreement (MOA) between the Environmental Protection Agency (EPA) and the Department of the Army (DA) concerning the Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines.
- e) Federal Guidance on the Appropriate Level of Analysis for Compliance with the Section 404(b)(1) Guidelines (RGL 93-2, dated August 23, 1993).
- f) 1995 Federal Guidance on Establishment, Use, and Operation of Mitigation Banks (Banking Guidance, published in the Federal Register on November 28, 1995).
- g) 2000 Federal Guidance on the Use of In-Lieu Fee Arrangements for Compensatory Mitigation under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act (In-Lieu Fee Guidance).
- h) Nationwide Permit Regulation (Issuance of Nationwide Permits Notice, published in Federal Register on January 15, 2002).
- i) Guidance on Compensatory Mitigation Projects for Aquatic Resource Impacts Under the Corps Regulatory Program Pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 (RGL 02-2, dated December 24, 2002).
- j) Federal Guidance on the Use of the TEA-21 Preference for Mitigation Banking to Fulfill Mitigation Requirements Under Section 404 of the Clean Water Act (July 11, 2003).

**IV. General Mitigation Considerations:** Mitigation plans should be developed to replace impacted and lost functions of the aquatic ecosystem at a minimum 1:1 functional replacement ratio (i.e., no net loss of functions). This replacement ratio may be increased depending on system values, likelihood of success, timing, location, and type of proposed mitigation. Stream mitigation measures should also provide a minimum 1:1 functional replacement. Functional assessment techniques are required to evaluate the existing conditions and mitigation measures; however, acreage and/or linear feet may be used as a surrogate for measuring mitigation ratios. The proposed functional assessment methodology should be approved by the Corps District office.

Compensatory mitigation is defined as, the restoration, enhancement, creation, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources for the purpose of compensating for unavoidable impacts. Mitigation options may also include mitigation banking and in-lieu-fee arrangements. Mitigation banking and in-lieu-fee arrangements may facilitate a watershed approach to mitigating impacts to waters of the U.S. Project managers will work with applicants to determine suitable options on a case-by-case basis.

The level of analysis and documentation of mitigation plans should be commensurate with the level of impact to aquatic resources. For individual permits, compensatory mitigation will generally be required by the Corps for most unavoidable impacts to wetlands and streams requiring such a permit. For nationwide permits, compensatory mitigation will be required for most unavoidable permanent wetland and stream impacts requiring a preconstruction notification (PCN) under the NWP program. For general permits and State Programmatic General Permits (Category III), the Corps will generally require compensatory mitigation by special condition for most unavoidable permanent wetland and stream impacts.

The development of performance standards is an integral element in the development of a successful compensatory mitigation and monitoring program. It is recommended that the Corps be involved as early as possible to develop specific, measurable performance standards and methodologies that will be used to track progress toward achieving the approved success criteria. Performance standards should be developed consistent with the intended mitigation goals and objectives. When these performance standards are included in the Section 404 permit as a special condition, they become legally binding upon the permittee.

A preliminary mitigation plan should be submitted with the formal application materials or the request for verification to facilitate a timely and effective review. A preliminary mitigation plan should generally include a discussion of how on-site impacts to aquatic resources were avoided and minimized and how the proposed compensatory mitigation will appropriately compensate for the remaining unavoidable impacts. A final mitigation and monitoring plan should generally not be prepared until the Corps has accepted the final jurisdictional map for the impact area and the mitigation site, and has agreed that the preliminary mitigation plan would likely compensate for the remaining unavoidable impacts.

Construction of the compensatory mitigation project should generally be in advance or concurrent with the authorized impacts to the extent practicable, and completed no later than the first full growing season following the impacts from authorized activities. In-lieu fee arrangements and mitigation banks should follow the guidance consistent with the Banking and In-Lieu-Fee provisions with regard to timing of mitigation construction. In addition, some Federal-aid highway projects may have legal and contractual requirements regarding the timing of mitigation that may conflict with the policy for advance or concurrent mitigation.

Pre-application meetings are encouraged to facilitate the evaluation of potentially complex or controversial projects and to discuss mitigation requirements and opportunities. In addition, pre-construction meetings between contractors, environmental consultants, and the project manager are encouraged for larger, more complex, and/or higher risk mitigation projects to ensure permit compliance.

Compensatory mitigation projects generally should not be designed with untreated stormwater inputs as their hydrology source because these sites may not replace functions of any wetland other than a severely degraded one. If the mitigation objective is wildlife habitat or maintenance of threatened or endangered species, then it may be inappropriate to route stormwater directly into the mitigation site without pretreatment. The additional inputs of sediments, nutrients, metals, and hydrocarbons may not be compatible with the primary objectives. In addition, invasive weedy species may gain a competitive edge in such situations.

- V. **Compensatory Mitigation Plan Checklist and Supplement (Enclosure A):** Enclosure A contains a one-page checklist with an attached supplement explaining the one page checklist in more detail. The checklist and supplement should serve as a technical guide for permit applicants preparing compensatory mitigation plans to offset impacts to aquatic resources authorized under the Clean Water Act Section 404 and the Rivers and Harbors Act Section 10 programs. The purpose of the checklist is to identify the types

and extent of information that the Corps needs to assess the likelihood of success of a mitigation proposal.

The one page checklist identifies the items that are generally required when developing compensatory mitigation plans. Although every mitigation plan may not need to include each specific item, applicants should address as many as possible and indicate, when appropriate, why a particular item was not included (For example, permit applicants who will be using a mitigation bank would not be expected to include detailed information regarding the proposed mitigation bank site since that information is included in the bank's enabling instrument). The supplement should be referred to for a further explanation of specific checklist items. Additional information that may be needed by the Natural Resources Conservation Service (NRCS) to satisfy the Swampbuster provisions of the Food Security Act is also included.

**Compensatory Mitigation Site Design Considerations- National Academy of Science (NAS) Recommendations (Enclosure B):** Enclosure B summarizes the NAS "Compensating For Wetland Losses Under the Clean Water Act" report on mitigation and includes the Corps' implementation clarification for the development and review of mitigation projects. These design considerations are provided to guide the planning and implementing of compensatory mitigation projects so as to increase the likelihood of mitigation