



MITIGATION 101

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1. What is wetland mitigation?

The Clean Water Act (CWA) was established to restore and maintain the chemical, physical, and biological functions of the Nation's waters. In order to achieve this objective, Section 404 of the CWA prohibits any activity that adversely affects waters of the US, including wetlands, unless authorized by the Army Corps of Engineers (or the state where such authority has been granted to the state such as Michigan and New Jersey).

All impacts to wetlands, streams and other aquatic resources must be avoided and minimized as best as possible. For impacts that are unavoidable, compensatory mitigation is required to replace the loss of wetland and aquatic resource functions. Compensatory Mitigation refers to the restoration, establishment, enhancement, or in certain circumstances preservation of wetlands for the purpose of offsetting unavoidable adverse impacts. The means by which compensatory mitigation is to occur is described in the "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule" published in the Federal Register on April 10, 2008 (Vol. 3, No. 7). The following definitions describe the types of mitigation which may occur:

- **RESTORATION:** To re-establish or rehabilitate a wetland or other aquatic resource with the intention of returning natural or historic functions and characteristics to a previous or corrupted wetland. Restoration may result in a gain in wetland function or wetland acres, or both.
- **ESTABLISHMENT (CREATION):** To develop a wetland or other aquatic resource where a wetland did not previously exist. This is done through the manipulation of the physical, chemical and/or biological characteristics of the site. If successful, the result is a net gain in wetland acres and function.
- **ENHANCEMENT:** To conduct activities in existing wetlands that heighten, intensify, or improve one or more wetland functions. Usually assumed for a specific purpose, such as to improve water quality, flood water retention or wildlife habitat. The result is gain in wetland function but not in a net gain in wetland acres.
- **PRESERVATION:** To permanently protect the 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 the protection of upland areas that are adjacent to wetlands in order to ensure protection or enhancement of the aquatic ecosystem. It can only be used in certain circumstances, including when the resources to be preserved contribute significantly to the ecological sustainability of the watershed.

The 1990 Memorandum of Agreement between the Environmental Protection Agency 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. This is commonly referred to as "sequencing".

STEP 1: AVOID – impacts must 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 – is required for unavoidable adverse impacts, which remain.

2. Is this real? We do not want to buy a bunch of credits and find out we really did not need them or they are useless.

The need for wetland credits is established upon completing an environmental assessment for each project, which includes an analysis of the wetlands impacted and an analysis of the mitigation proposed. This can be done on a need-by-need basis; but, in turn, the price per mitigation acre will be higher and the applicant can possibly experience a delay in the permitting process. If an applicant chooses to plan in advance and go forward with a customized mitigation plan that is specific to both current and future needs but based mainly on forecasts, they will experience lower costs and sometimes a quicker permit process. Once an applicant has an idea of where the project site(s) will be located, a desktop analysis of the site can be run and the amount of impact acres can be estimated. The applicant must mitigate for each impact acre (a ratio of impact acres to restoration acres is applied). If a drilling schedule or depletion plan is provided, the total amount of mitigation credits required will be estimated with about a 20% variance. For that reason, Delta Land proposes to dedicate a certain amount of mitigation acreage to clients with option periods to purchase additional mitigation credits at locked in pricing; as well as transferability and profit sharing of unused mitigation acres.

3. Why are we required to offset? What are the regulations that state this? When did the rule go into effect?

The Clean Water Act has a “no net loss of wetlands” policy, which dates back to the 1990 MOA. The use of mitigation and mitigation banks has been defined by various Memoranda and Regulatory Guidance Letters but was incorporated in the CWA by rule in 2008. 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.

Section 404 of the Clean Water Act regulates impacts to wetlands, streams and other aquatic resources. The EPA and the Corps use the 1987 Corps of Engineers Wetlands Delineation Manual to define wetlands for the CWA Section 404 permit program. 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.

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). 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
- 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

Additionally, various other state and federal resource agencies are involved in the process as coordinating agencies. Federal resource agencies include, but are not limited to, US Fish and Wildlife Services and National Marine Fisheries Services.

4. **What is the process to acquire credits? What are our guarantees that if we buy credits that are approved by the Corps that we can use them? Is there an instrument?**

There are two compensatory mitigation mechanisms used to offset unavoidable impacts:

1. **Permittee-Responsible Mitigation (PRM)** - mitigation that is taken on by a permit applicant in order to compensate for wetland impacts that result from a specific project. The mitigation is performed after the permit is issued and the permittee is ultimately responsible for the success of the mitigation. PRMs are typically used when there is no other banking option available or when an applicant has a master service agreement with a mitigation banking company. PRMs are usually not preferred because the liability remains with the applicant; however, Delta Land signs into an internal agreement that transfers the liability from the applicant to the bank sponsor, which would be Delta Land Services in this case.
2. **Mitigation Banking** - A mitigation bank is a wetland area that has been mitigated (restored, established, enhanced or preserved) and set aside to compensate for future impacts to wetlands for development activities. With regulatory approval (through the permitting process), permittees can purchase credits or hold credits to be purchased 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. An instrument or agreement is developed and signed between the mitigation banker and the US Army Corps of Engineers governing the operation of the bank as well as stipulating the liability for mitigation transfers from the permittee to the mitigation banker once credits are purchased for impacts associated with a DA permit.

Time permitting; Delta Land Services often proposes to use both mechanisms because the approval process for a mitigation bank is lengthy (a minimum 18 months). Mitigation plans are submitted with the permit application for each project and is subject to Corps comment until the permit application is approved.

Mitigation sites/locations are approved by the Corps prior to being proposed as a mitigation solution for a particular project. However, the reviewing agencies are free to comment on the mitigation plan during the permit approval process.

As a mitigation provider, Delta becomes the legal Sponsor of the proposed mitigation bank, and will provide all turn-key operations and regulatory compliance needed to establish the wetlands mitigation bank.

5. **Do we have to get offsets for pipeline also addition to well pads and facilities site?**

Yes... if pipelines impact wetlands, you will have to mitigate for those impacts. However, it is sometimes easier to change the route(s) of the pipeline to avoid impacts. A best management practice would be to avoid and minimize at every possible opportunity.

6. Who do we deal with when negotiating mitigation? Anybody else besides the USACE?

In terms of negotiating mitigation, the US Army Corps of Engineers is the lead agency but coordination will happen with other state and federal resource agencies per the discussion under question #3.

Wetlands enforcement is primarily done by the Corps; however, in some circumstances the EPA will be lead enforcement agency. In addition to jointly implementing the Clean Water Act Section 404 program, EPA and the U.S. Army Corps of Engineers (Corps) share Section 404 enforcement authority. EPA has oversight enforcement authority on cases forwarded to the EPA by the Corps, which depends on the severity; or, in some cases, repeat offenders or non-response by the offenders to the Corps' Cease and Desist Order.

TYPES OF VIOLATIONS

Section 404 violations fall into two broad categories:

1. Failure to comply with the terms or conditions of a Section 404 permit
2. Discharging dredged or fill material to waters of the United States without a permit

In 1989, EPA and the Corps entered into a Memorandum of Agreement (MOA) on enforcement to ensure efficient and effective implementation of this shared authority. Under the MOA, the Corps, as the federal agency that issues permits, has the lead on Corps-issued permit violation cases. For unpermitted discharges, EPA and the Corps determine the appropriate lead agency based on criteria in the MOA.

ENFORCEMENT GOALS AND TOOLS

EPA's Section 404 enforcement program has three goals: protect the environment and human health and safety, deter violations, and treat the regulated community fairly and equitably. EPA's enforcement program achieves these goals through voluntary compliance and by using the enforcement tools provided under Sections 309 and 404 of the Clean Water Act.

In administrative enforcement, under Section 309(a), EPA can issue administrative compliance orders requiring a violator to stop any ongoing illegal discharge activity and, where appropriate, to remove the illegal discharge and otherwise restore the site. Under Section 309(g), EPA and the Corps can assess administrative civil penalties of up to, but not exceeding, \$125,000 per action.

In judicial enforcement, Sections 309(b) and (d) and 404(s) give EPA and the Corps the authority to take civil judicial actions, seeking restoration and other types of injunctive relief, as well as civil penalties. The agencies also have authority under Section 309(c) to bring criminal judicial enforcement actions for knowingly or negligently violating Section 404.

7. Is mitigation required to be near-by? Same ecological type?

When considering options for successfully providing the required compensatory mitigation, the district engineer (Corps) shall consider the type and location options... {(33 CFR Part 332.3(b)(1) Compensatory Mitigation for Losses of Aquatic

Resources)]. In general, the required compensatory mitigation should be located within the same watershed as the impact site, and should be located where it is most likely to successfully replace lost functions and services, taking into account such watershed scale features as aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources (including the availability of water rights), trends in land use, ecological benefits, and compatibility with adjacent land uses. When compensating for impacts to marine resources, the location of the compensatory mitigation site should be chosen to replace lost functions and services within the same marine ecological system (e.g., reef complex, littoral drift cell). Compensation for impacts to aquatic resources in coastal watersheds (watersheds that include a tidal water body) should also be located in a coastal watershed where practicable.

8. Who enforces mitigation offsets impacts?

The U.S. Army Corps of Engineers within their respective District (e.g., New Orleans, Vicksburg, Fort Worth, Galveston districts) is the Federal permitting agency regulating wetland impacts and mitigation.

9. How are the impacts and mitigation calculated?

Wetland impacts and compensatory mitigation are currently calculated by modeling. Three examples of the general model types used by the Corps Districts are listed below. However, each Corps District uses different methods.

- A. Hydrogeographic model (HGM)
- B. Charleston Method
- C. Modified Charleston Method

332.3(A) ...*Compensatory mitigation requirements must be commensurate with the amount and type of impact that is associated with a particular DA permit...*

332.3(F)(1-2)

(1) If the district engineer determines that compensatory mitigation is necessary to offset unavoidable impacts to aquatic resources, the amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions. In cases, where appropriate functional or condition assessment methods (see model examples above) or other suitable metrics are available, these methods should be used where practicable to determine how much compensatory mitigation is required. If a functional or condition assessment or other suitable metric is not used, a minimum one-to-one acreage or linear foot compensation ratio must be used.

(2) The district engineer must require a mitigation ratio greater than one-to-one where necessary to account for the method of compensatory mitigation (e.g., preservation), the likelihood of success, differences between the functions lost at the impact site and the functions expected to be produced by the compensatory mitigation project, temporal losses of aquatic resource functions, the difficulty of restoring or establishing the desired aquatic resource type and functions, and/or the distance between the affected aquatic resource and the compensation site. The rationale for the required replacement ratio must be documented in the administrative record for the permit action.

10. Is this being enforced?

Yes, it is being enforced.

11. When did this start?

Do not know the exact date; however, permitting and mitigation has been in effect since the 80's. The number of mitigation banks across the U.S. increased 780% from 1992 to 2005 (Bourriaque 2008). In 2006, Louisiana led the nation with 96 banks. There are also numerous project-specific mitigation projects (now called PRMs) which exist.

12. If mitigation has been going on for a while, what happens if we had a well that we did not go through offsets?

Corps and EPA wetland jurisdiction is specific to dredging and filling wetlands acreages (Section 404 of the Clean Waters Act 1972) and navigable waters (Section 10 of the Rivers and Harbors Act of 1899), and dumping of dredged material in marine waters (Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972). Previous wells and access routes may not have occurred on or in wetlands and there was not a jurisdictional issue for the Corps or EPA to enforce. However, in the Haynesville Shale area, the EPA is stepping in and taking all jurisdictions on wetland violations without Corps enforcement. In other words, any infractions in the Haynesville Shale are immediately elevated beyond the Corps.

13. Once we purchase credits, do we have to be involved in making sure the banks maintain them properly?

If credits are purchased from an approved mitigation bank, the answer is no. All liability transfers to the bank sponsor. If a PRM option is used, Delta would act as the "third-party" responsible for compensatory mitigation. Delta would contract with the client to ensure success of the project but the client would continue to be liable for success of the mitigation project as the permit applicant.

14. How long are the credits good for?

Once the Corps receives a permit application, they run an impact analysis for that particular permit... to determine the amount of mitigation credits required to compensate for the impacts (the applicant runs this analysis as well; but it may differ from the Corps'). The applicant will then have to purchase that amount of credits to compensate for the impacts associated with that specific permit/project. Therefore, bank credits are applied to a certain permit or project. Once the transaction is made, the permit applicant is free of their responsibilities to the Corps. By signing into a long-term agreement with Delta Land Services, clients are in a sense purchasing "futures"... Delta Land is committed to providing the client with bank credits to satisfy their mitigation needs. By purchasing an allotment of credits to be used for future purposes, the client is receiving a much lower price as they would if they were to purchase credits as needed.

15. Can we use them on Refuges?

This question can be answered in two ways (Federal Register/Vol. 64, No. 175, Friday, September 10, 1999, pages 49229-49234).

- A. May a mitigation bank be formed on a NWR? The answer is no. NWR cannot be used to form a mitigation bank for impacts to offsite wetlands. "We will not support the use of National Wildlife Refuge System lands for establishment of mitigation banks."
- B. What about onsite (on refuge) impacts? "If compatible activities occurring on a National Wildlife Refuge require compensatory mitigation, the mitigation must occur within the boundaries of the National Wildlife Refuge being affected and must meet specific criteria."

However, the Secretary or Regional Director can modify this policy. Apparently, the southeast region has indicated that coastal refuges in Louisiana may support mitigation banks as a means of repairing damages inflicted by hurricanes. The southwest region, which has jurisdiction in Texas, has not made this call.

16. Can the Corps approve or accept mitigation on the Refuge?

Wetland mitigation on a Refuge would be part of the mitigation plan required by the 404 permit and the Corps would likely have input to ensure that the permittee meets the requirements of the Section 404 permitting process and the provisions of the 2008 mitigation rule. However, Refuge personnel would be very involved in the compensatory mitigation project as it must also be consistent with their conservation and operations plan for the Refuge.

17. If we started our own mitigation bank or had a company such as Delta, how long of an approval process does it take to get approval?

Bank approval time frames may be anywhere from 18 to 24+ months.

WEB RESOURCES:

http://www.usace.army.mil/CECW/Pages/reg_overview.aspx

<http://water.epa.gov/lawsregs/lawsguidance/cwa/wetlands/>