Mitigation Banking

A White Paper
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Executive Summary

Conservation or mitigation banks are free-market enterprises that provide for long-term protection of habitat by offering landowners economic incentives to protect natural resources. In many cases, mitigation banks may save developers time and money by providing them with the certainty of pre-approved compensation lands.

Conservation Banking

A conservation bank generally protects threatened and endangered species habitat. Credits are established for the specific sensitive species that occur on the site. Conservation banks must be approved by the wildlife agencies, such as the Department of Fish and Game and the U.S. Fish and Wildlife Service.

Mitigation Banking

Mitigation banking is the same concept as conservation banking, but is specifically for wetland restoration, creation, and enhancement undertaken to compensate for unavoidable wetland losses. Use of mitigation bank credits must occur in advance of development, when the compensation cannot be achieved at the development site or would not be as environmentally beneficial. Mitigation banking helps to consolidate small, fragmented wetland mitigation projects into large contiguous sites that will have much higher wildlife habitat values. Mitigation banks are generally approved by the wildlife agencies and the U.S. Army Corps of Engineers.

The goal of wetland mitigation is to replace wetland functions that provide public benefits, such as flood storage, water quality protection, fish and wildlife habitat, and groundwater recharge. Conservation/mitigation banks also provide for the conservation of important habitats and/or habitat linkages. They are viable alternatives to the current practice of requiring piecemeal mitigation for individual project impacts, and they provide incentives to private landowners to practice conservation. Additionally, they take advantage of economies of scale otherwise unavailable to individual mitigation projects.

Approximately 100 wetlands mitigation banks currently operate or are proposed in nearly three dozen states. Conservation banks are now being used to help restore other kinds of natural resources as well. Their growing popularity reflects the fact that mitigation banking is more cost effective as a means of restoring natural resources, can reduce delays in permitting, eliminates the temporary loss of natural resources during development and assures maintenance of these vital natural areas forever.

Overview

The development of vast parcels of land across the country destroys or threatens thousands of acres of wetlands and other sensitive habitats every year. Recognizing that the potential loss of many sensitive plant and animal species could be irreversible and could affect other species that coexist for part or all of the year in these areas, state and federal governments have enacted laws and regulations designed to preserve these sensitive habitats.

Although the agencies prefer that these areas remain undisturbed, they recognize that this is not always practical. Wetlands substitution or replacement at another site is an acceptable solution where avoidance is not possible. However, until recently, a developer or landowner had only two options:

1. The landowner could mitigate the lost habitat or wetlands on a portion of the site he was developing; a loss of expensive development land, or
2. The landowner could purchase another piece of land on which to develop compensatory habitat.

Unfortunately, both of these options require long-term monitoring and maintenance of the habitat to ensure its viability. They must meet regulatory agency standards at construction, and then must continue to meet said standards for a minimum of 5 years. If the habitat should begin to fail, the developer would be required to correct that aspect of the habitat that has failed, replant and/or restock the habitat to the standards set by the agencies. This can be very costly in terms of time and money, and if the developer is not qualified to maintain or monitor the habitat, he faces the additional expense of hiring a professional to perform this task.

Mitigation Banking is a solution that simplifies the process for the development community and the agencies.

Mitigation Banking is defined by the federal government as: "wetland restoration, creation, enhancement, and, in exceptional circumstances, preservation undertaken expressly for the purpose of compensating for unavoidable wetland losses in advance of development actions, when such compensation cannot be achieved at the development site or would not be as environmentally beneficial." *Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 60 Fed. Reg. 58,605; 58,606 (November 28, 1995).*

History

The roots of mitigation banking date back to the 1960s, with the origination of the environmental movement. During the 1970s, several federal laws were implemented such as the Clean Air Act of 1970, the Clean Water Act of 1972, the Coastal Zone Management Act of 1972 and the Endangered Species Act of 1973. In 1988, President George Bush announced a Domestic Policy Council, calling for "no net loss" of wetlands. Later, President Clinton endorsed this policy claiming Mitigation Banks as a viable option for compensating for wetland impacts. A Federal Guidance implementing the Clinton Administration's Wetland Plan was published outlining the strict procedures and policies ensuring that wetland functions and values are preserved. Mitigation Banking is one of the processes *"of preserving, enhancing, restoring or creating habitat to compensate for unavoidable wetland impacts*."

Mitigation banks are essentially preserves of protected, restored or constructed wetlands or other habitats, set aside to meet governmental requirements for compensatory mitigation of impacts to wetlands and other habitats which occur with development. When a landowner or developer needs to substitute habitats for those being lost to development, he can purchase "credits" in a mitigation bank. Credits are a term used for a habitat value that is predetermined by an agreement between the mitigation bank developer and state and federal agencies. The mitigation bank is authorized to sell credits to developers or landowners where on-site mitigation or avoidance of the wetlands or other habitat is not feasible.

A Mitigation bank typically involves the consolidation of small, fragmented wetland mitigation projects into one large contiguous site. Units of restored, created, enhanced or preserved wetlands are expressed as "credits" which may subsequently be withdrawn to offset "debits" incurred at a project development site.

Mitigation banks are a better solution ecologically, because they allow for mitigation before impact to existing wetlands, are generally of much larger size and they consolidate financial resources and biological expertise to provide a more focused approach. By creating the wetlands or other habitat and proving its viability before impacting an existing habitat, the bank assures both governmental agencies and the developer that "no-net-loss" of habitat or loss of habitat function will occur. Consolidating wetlands and resources from many smaller isolated projects into larger mitigation banks better protects the threatened ecosystem, and improves the successful establishment and long-term management of these habitats.

Not all lands are appropriate for mitigation banking. Generally, lands that meet one or more of the following criteria are not appropriate for conservation/mitigation banking:

1. lands that do not support significant biological resources, and restoration is not planned or feasible;
2. lands that do not contribute to a regional reserve system or recovery strategy;
3. lands that cannot sustain their long term biological viability due to small size, isolation, and/or habitat fragmentation;
4. lands that are used as mitigation for a previous project(s);
5. lands that are already designated or dedicated for passive park or open space use, where that use is generally compatible with sustaining biological values;

6. lands purchased for designated purposes which are not consistent with habitat preservation, where the use of the land is irrevocably limited to the incompatible activity (e.g., lands purchased for roads, landfills, etc.)
7. lands acquired by a public entity (e.g., with State Bond Act funds) or provided to a jurisdiction for park or natural open space purposes (excluding lands purchased by state and local agencies specifically for the purposes of mitigation or mitigation banking assuming the funding source is appropriate; and,
8. lands with existing easements that are incompatible with the purposes of the bank.

FAQs

How is a Mitigation Bank formed?

Mitigation Banks are permitted. Before a bank can be permitted, and approved for wetland credit sales, federal and state government regulatory agencies form a Mitigation Banking Review Team (MBRT) that must approve plans for building the bank, from the hydrological and planting design to maintenance and monitoring arrangements. The MBRT also approves the number of mitigation credits that may be earned by the Banker.

For example, a mitigation banker purchases a tract of degraded wetlands or prior converted wetlands and undertakes the design and permitting process to restore, create, enhance and/or preserve the wetlands, and monitor them to assure the site's long-term success.

How Does Wetland Mitigation Banking Work?

Under Section 404 of the Clean Water Act, any landowner who encounters jurisdictional wetlands on a development site must try to avoid filling in (i.e., impacting) the wetlands. If avoidance is not possible, the impact must be minimized. If the impact is unavoidable and non-trivial, that landowner must then "mitigate" the impact by replacing the impacted wetland with a similar type of wetland. Such mitigation must be accomplished either on the impact site or off-site, ideally within the same watershed or ecosystem.

The process of identifying a site for wetland mitigation, designing the new wetlands and obtaining governmental approval can delay a development project for many months and costs tens of thousands of dollars. Wetland mitigation banking circumvents most of this process by allowing a developer to mitigate for unavoidable impacts by purchasing wetland acres from a Wetland Mitigation Bank. A Wetland Mitigation Bank is a site that has already been turned into wetlands and received all requisite governmental certifications. Once a Wetland Mitigation Bank has obtained its approvals, it is granted a certain number of wetland acres that it can sell to other persons whose projects are within the Service Area of the particular Wetland Mitigation Bank. Buyers may use these wetland acres to meet their mitigation obligations. Before the wetland acres are sold, the land under them is legally restricted from ever being developed, protecting these wetlands for future generations.

Who buys those credits? An applicant who has applied to the federal and/or state agency responsible for wetland permitting, and has provided adequate justification of a need to impact wetlands. The applicant must also provide evidence that the use of wetland bank credits are the most environmentally preferable method.

As an example: A private developer needs to impact 2 acres of existing wetland for commercial purposes. Once federal and state regulatory agencies have agreed that the developer cannot avoid or even minimize the effect on those 2 acres, the developer must compensate— hence, the word mitigation— for the wetlands' loss by purchasing credits in a mitigation bank or securing regulatory agency approval for some other form of mitigation (e.g., on-site, off-site, fee-in-lieu, etc.)

Why buy credits in a mitigation bank instead of creating a wetland on- or off-site? For the developer, purchasing credits has these major benefits:

- Saves time and money: The developer, after following the 404(B)(1) Guidelines to try to avoid or then minimize wetland impacts, then does not have to go through the time-consuming permit approval process to create or restore a wetland. One of the benefits described in the *Federal Guidance for the Establishment, Use and Operation of Mitigation Banks* is that "Use of mitigation banks may reduce permit processing times and provide more cost-effective compensatory mitigation opportunities for projects that qualify." The developer may not be experienced in wetland restoration, which requires expertise and equipment the developer may not possess. For the long term, buying credits in a bank is usually less costly than "doing your own," particularly when an investment in additional land is required for mitigation and the cost of the additional permitting process is added to the construction task.
- Eliminates risk and responsibility: The credit transaction legally transfers all responsibility for mitigation of wetlands to the mitigation banker.

And purchasing credits in a mitigation bank brings one more highly significant benefit for the environment:

- The mitigation bank assures that the mitigation works – and lasts. Too often, wetlands built on-site eventually fail because the landowner does not have sufficient incentive or know how to maintain them. **Mitigation bankers assume total responsibility for the mitigation and guarantee perpetual maintenance of the bank's environmental assets**
- Mitigation is typically performed prior to the wetland impacts, therefore reducing or eliminating temporal loss of wetland functions.
- Mitigation is always assured to occur within one year of wetland impacts and financial securities and conservation easements are in place prior to wetland impacts.

How are Mitigation Bank Sites Selected?

The location of mitigation bank sites are based on consideration of areas ability to offer potential wetland functions and values most needed for compensatory mitigation, the potential to link corridors or small areas into larger ones, areas that offer the most feasible conditions for successful establishment of a viable wetland, areas that will incorporate land adjacent to or near other public lands, and state-wide wetlands plans or strategies.

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What are Mitigation Banking Credits and Debits, and How Are They Determined?

Credits and debits essentially represent "currency" or units of trade. Credits represent the accrual or attainment of wetland functions at the bank site resulting from the restoration being done, while debits represent the loss of functions at the project site.

The Corps of Engineers, in conjunction with the Mitigation Bank Review Team, determine the number of credits available at a bank site based potential for restoring or enhancing the wetland functions as compared with existing conditions. The potential for restoring wetland functions is determined by applying an appropriate functional assessment technique, such as the Hydrogeomorphic Wetland Assessment Method. For more information on this assessment technique, see http://www.aswm.org/propub/pubs/aswm/functionsandvalues.pdf.

What are the Advantages of Mitigation Banking?

Mitigation banking can have several advantages over traditional compensatory mitigation. Mitigation banks can consolidate many small, scattered compensatory mitigation sites into one larger site that may be more advantageous for maintaining the integrity of the aquatic ecosystem. Mitigation banks bring together financial resources, planning and scientific expertise not practicable to many small compensatory mitigation projects, thus increasing the probability of success. Typically, mitigation banks are functioning at some level prior to project impacts, thereby reducing temporal losses of aquatic functions. Consolidation of compensatory of mitigation within a bank increases the efficiency of limited agency resources needed to review and monitor mitigation projects for compliance.

Conclusion

Conservation banks, if properly established and managed, serve several useful functions.

First and foremost, banks provide for the conservation of important habitats and/or habitat linkages.

Second, they provide a viable alternative to the current practice of requiring piecemeal mitigation for individual project impacts. Individualized mitigation projects which have little connection with their surrounding ecosystem are often much more prone to failure than a mitigation project which is incorporated into a larger, ecosystem-based conservation bank or regional conservation plan.

Third, conservation banks can take advantage of economies of scale that are often not available to individualized mitigation projects.

Fourth, conservation banks provide significant incentives for private landowner participation and represent one of the best examples of private/public partnerships in an era of shrinking budget resources.

Fifth, conservation banks can be a major funding component for the creation of an ecosystem preserve under a regional conservation plan.

Sixth, and finally, conservation banks simplify the regulatory compliance process while achieving greater conservation goals.

Mitigation banks can play an important role within a comprehensive state-wise or regional land conservation plan by simplifying regulatory compliance and streamlining the permit evaluation process. They can also provide for effective mitigation because larger, consolidated wetland bank sites can provide greater function and ecological value as compared to small, isolated, on-site mitigation projects; banks provide mitigation in advance of impacts, which is of significant benefit to the environment; have a greater probability of success because of consolidation of professional and regulatory resources, in addition to the financial guarantees banks provide; and, because when properly administered, banks reduce the permit processing time, they can enhance the efficiency and effectiveness of the regulatory agencies.

Institutional Policies and Practices

For purposes of providing guidance on conservation banking, the Georgia Department of Natural Resources should designate and train personnel to actively work with potential bank developers in accordance with the following precepts:

> 1. The priority for mitigation should be to accomplish it at a site that provides for the long-term conservation of habitat and species. As such, off-site mitigation is specifically sanctioned in the context of an otherwise permissible conservation bank.
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> 2. A bank may be established pursuant to regulatory permit or contract between the bank developer and the appropriate regulatory agency(s). Where a bank is

established pursuant to contract, care must be taken to create a legally enforceable instrument.

3. There is no minimum or maximum size of a conservation bank and it may be divided into clearly defined subareas. However, the bank and each of its subareas (if any) should be large enough to be ecologically self-sustaining or part of a larger conservation strategy that has a reasonable expectation of being accomplished.

4. Upon sale of the first credit in the bank or subarea, the land in the bank or subarea must be permanently protected through fee title or conservation easement. The land-use restrictions should run with the land and be recorded in the appropriate county(s) of jurisdiction.

5. Before selling bank credits, a proposed conservation bank should be approved by the appropriate resource management agency(s). Basic elements in any approvable bank proposal should include, but are not limited to:

> a. identification of a bank manager;
>
> b. identification of the geographical boundaries of the bank and the service area of the bank;
>
> c. provision for fundamental property protection measures (e.g., fencing some or all of the bank property if deemed appropriate, control of off-road vehicle use, etc.);
>
> d. provisions for the resolution of current or prospective land use conflicts involving the bank lands (e.g., rights-of-way issues, existing use issues, adjacent land-use issues);
>
> e. provisions requiring an annual report by the bank manager to be submitted to the appropriate regulatory agency(s).

6. Prior to the sale of credits, a resource management plan should be approved by the appropriate regulatory agency(s). A sufficient level of funding with acceptable guarantees (e.g., cash, letters of credit, public charity, public funding mechanism) should be provided to fully ensure the operation and maintenance of the bank as may be required.

7. Provision should be made for long term management of bank lands after all the mitigation credits have been awarded. Generally, land management responsibilities should ultimately vest in a resource management agency or qualified non-profit organization, although a private entity may be an acceptable long-term manager.

8. Provision should be made for ensuring implementation of the resource management plan in event of non-performance by the bank owner and/or operator.

9. Provisions should be made in any bank establishment for the monitoring and reporting of identified species/habitat management objectives.

10. An easement or other agreement should be established at the bank in favor of appropriate resource management agency(s) guaranteeing the agency's right of entry onto bank lands for the following purposes:

a. Inspections;

b. Specified resource management responsibilities;

c. Quality Assurance/Quality Control review with regard to bank management and operation;

d. Resource management should the bank operator fail to implement prescribed resource management responsibilities.

11. Bank credits should be established by reference to an environmental baseline which may, but need not be, assessed at the time of the bank creation. This baseline will be used to establish credits for a number of categories requiring resource management, including, but not limited to, the following:

a. Resource Preservation (the preservation of specified resources through acquisition or other appropriate means);

b. Resource Enhancement (the enhancement of a degraded resource);

c. Resource Restoration (the restoration of a resource to its historical condition);

d. Resource Creation (the creation of a specified resource condition where none existed before).

12. The award of bank credits should be negotiated on a case-by-case basis between the project proponent in need of the subject credits, the regulatory agency(s) of jurisdiction, and the bank manager. Generally:

a. Credits may be negotiated for available or prospective resource value establishment.

b. Credits may be based on habitat acreage, habitat quality, contribution to a regional conservation strategy that has been approved by the appropriate regulatory agency(s), or any other basis acceptable to the regulatory agency(s).

c. Actual awards of bank credits need not be withheld pending full realization of the targeted resource value at the bank. Credit availability may vary in accordance with agreed upon performance criteria for the development of the resource value in question.

d. Awarded bank credits, subject to the approval of the regulatory agency(s), may be made transferable.

13. Whether out-of-kind mitigation credit will be allowed at a particular bank will require a fact-specific inquiry on a case-by-case basis for the project creating the impacts.

14. The creation of any conservation bank should be listed with DNR and other selected land conservation agencies and/or organizations in accordance with forthcoming guidance for purposes of maintaining a statewide bank inventory.

Postscript

For a copy of the Federal Mitigation Banking Guidance and other wetland mitigation banking information, contact the EPA Wetlands Information Hotline at 800/832-7828 or 202/566-1735 for the Wetlands Librarian.