

Wetlands Banking: A Good Investment?

by Clyde B. Johnson, SR/WA

Clyde Johnson is the project development manager for the Georgia division office of the Federal Highway Administration, with more than 20 years experience in the right-of-way profession. He holds a master's degree in business administration with a major in real estate.

He is a certified IRWA instructor and a part-time instructor for the department of real estate at Georgia State University. Currently vice president of IRWA Chapter 22, Clyde also serves on the Planning and Zoning Commission for the city of Alpharetta. He received the 1991 Mark A. Green award for journalistic excellence as well as his chapter's 1991 "Professional of the Year" award.

On December 18, 1991, President Bush signed into law the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), Public Law 102-240. This legislation created sweeping changes in the industry by recognizing and incorporating all modes of transportation into a single legislative package while redefining the roll of federal government involvement. This historic legislation provided important funding to address infrastructure improvements relating to transportation and provide a stimulus to the nation's economy. Also, ISTEA addresses the need for wetland mitigation under Section 1006 (d) (i) (13) and Section 1007, subsection 133 (b) (11) which states:

"In accordance with all applicable federal law and regulations, participation in wetlands mitigation efforts related to projects funded under this title, which may include participation in wetlands mitigation banks; contributions to statewide and regional efforts to conserve, restore, enhance and create wetlands; and development of statewide and regional wet-

lands conservation and mitigation plans, including any such banks, efforts, and plans authorized pursuant to the Water Resources Development Act of 1990 (including crediting provisions). Contributions to such mitigation efforts may take place concurrent with or in advance of project construction. Contributions toward these efforts may occur in advance of project construction only if such efforts are consistent with all applicable requirements of federal law and regulations and state transportation planning processes."

In addition, a May 1992 joint memorandum from the Federal Highway Administration (FHWA), U.S. Army Corps of Engineers, and the Environmental Protection Agency (EPA) recognized the need for "streamlining and improving the efficiency of the environmental review and clearance process, and taking prompt action on Section 404 permit applications," in a desire to respond to the provisions of the ISTEA.

As a follow-up to "Understanding Wetlands and the 404 Process" (*Right of Way*, February 1992), *wetland banking* is a process that allows for the replacement of unavoidable wetlands loss due to any activity that impacts existing wetlands.

This article will focus on the concept of wetland banking as a mitigation tool, public/private sector investment in wetland banking, and ownership alternatives for purchasing wetlands. Other areas of interest center on questions concerning functional quality, acreage replacement requirements, whether a replacement site must be a functional wetland before credits can be allowed, and location of mitigation banks. Each participant in the decision-making process will have a vested interest in these topics and, in order for this procedure to work well, each partici-

pant must be willing to accommodate the needs of others.

In an article entitled "Our Disappearing Wetlands" (*National Geographic*, October 1992), John G. Mitchell points out that the United States loses over 300,000 acres of wetlands each year, and provides a pictorial analysis of the loss of our nation's wetlands. Mitchell provides a somewhat elegant explanation for the origination of the term: "The word 'wetlands' is a relative newcomer to the language, an invention of the age of ecology. Most people used to be content to speak of marshes and swamps, and let it go at that, without even knowing the difference—the difference being that a marsh is a wet place with herbaceous vegetation, while a swamp is a wet place dominated by shrubs and trees. And since there are so many different kinds of each, it behooved some unsung wordsmith to come up with a handle that would carry them all—bogs, sloughs, floodplains, estuarine marshes—to cite just a few. So what did we get for that handle? Wetlands." His article also addresses concerns regarding restoration versus mitigation and, according to one source, the problem with wetland mitigation and restoration is the idea that quantity can be used as a substitute for quality. A restoration turns out to be only half as good as it should be? "No problem," say the sponsors, "we'll just restore twice as much."

Perhaps it would be best to briefly review the status of the delineation manual and the definition of wetlands in light of current congressional debate. The 1989 *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* has been rescinded. The EPA and the Corps of Engineers have returned to the 1987 wetlands manual for the delineation of wetlands. The previous administration,

in its attempt to address state/developer/property owner concerns, had sought to lessen the requirements of the 1989 manual, but met strong resistance from the environmental sector. Finally Congress, through the passage of several energy and water appropriations bills, required the return to the 1987 manual. EPA Administrator William Reilly issued a statement in January 1993 which indicated that the utilization of the 1987 manual should resolve the confusion over delineation, and provide for a more uniform application by both EPA and the Corps of Engineers. It appears that the attack on delineation will continue through congressional legislation which may further weaken the 1987 requirements. Representative James Hayes's (D-LA) bill (HR 1330) proposes to alter the definition of a wetland to require surface water saturation for 21 days. Whatever the outcome, three basic characteristics of wetlands are considered in making a determination: 1) hydrology, 2) vegetation, and 3) soil. If some doubt still exists and you find one of the following conditions prevalent at a site, then additional action is required:

- Area is periodically flooded by tides, even if only by strong, wind-driven, or spring tides.
- Area occurs in a floodplain or otherwise has low spots in which water stands at or above the soil surface for more than seven consecutive days during the growing season (currently under review, see above legislation to change this condition).
- Area has plant communities that commonly occur in areas having standing water for part of the growing season (gum swamps, cordgrass marshes, cattail marshes, bulrush and tule marshes, and sphagnum bogs).
- Area has soils that are called peats

or mucks.

If the Hayes bill is unsuccessful, it is almost certain other legislation will be introduced that will have the net effect of changing the 1989 (or 1987) wetlands delineation manual that expanded the amount of land brought under the above definition. The battle lines have been drawn between environmental and developmental desires. As James J. Kilpatrick stated, "Let us reason together. Wetlands are important—surely both sides can agree on that much—and true wetlands, fairly defined, have to be preserved."

land Symposium, October 1986) points out: "Requiring applicants whose projects will impact only small fragments of wetlands to identify, acquire, and enhance an area in order to replace wetland values lost as a result of development projects is cumbersome, inefficient, and often ineffective. When this process is undertaken by a developer with no experience in designing a wetland enhancement project and whose overriding goal is to satisfy the mitigation requirement as quickly as possible for the least possible cost, the resulting mitigation project often has little

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It is important to remember that mitigation of wetland impacts must consider the five following factors:

- Avoidance-Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimization-Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Restoration-Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Preservation-Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensation-Compensation for the impact by replacing or providing substitute resources or environments.

WHY DEVELOP WETLAND MITIGATION BANKS?

There are several benefits, Elizabeth P. Riddle in her article, "Mitigation Banks: Unmitigated Disaster or Sound Investment?" (National Wet-

land Symposium, October 1986) have raised serious questions about the habitat value of mitigation projects designed by permit applicants, and the ability of these projects to compensate for habitat losses. And, because permitting agencies typically do not have adequate staff to monitor compliance with the mitigation requirements, permit applicants often fail to comply with these requirements." The overriding theme of those who support this concept is that the quality and amount of wetlands will be enhanced by the banking system, and wetland mitigation sites can be analyzed for value and compared to the value of the wetland to be impacted.

The concept of wetland banking is not entirely new. The basic premise has been around for years in various forms. Many states have taken steps to identify wetlands and formulate a useful inventory and mapping system to assist in the orderly process of addressing developmental needs while striving to balance environmental concern, and several have

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established varying forms of banking systems. Wetland banking as a concept is a logical extension in an attempt to address both the developer's (highway construction) needs to advance the project and the environmentalist's (regulating agencies) desire to maintain and enhance these important ecosystems. With this in mind, the most important point to remember when considering embarking along the path of the wetland banking process is to make sure all state and federal regulatory agencies are in agreement with the scope and plan of your program (must be approved by the EPA and Corps of Engineers) before committing to a specific site.

The banking concept is very similar to basic accounting in that it requires for every debit to a specific account a credit to assure a balanced journal ledger. Thus, a developer could build credits to be used later as needed. This brings about an important point that must be considered if a successful banking system is achieved. The debits (project effects) and credits (replacement wetlands) must be of similar accounts or quite simply, similar ecosystems, to be acceptable. An ecosystem is defined as a system composed of plants and animals that exist in an environment of physical and chemical factors so mutually inclusive that, with the absence of one factor, the entire system cannot exist. Ecosystem quality and diversity has become a prime factor that dictates wetland replacement requirements. Under the concept of wetland banking, the bank must contain a ecosystem similar to the one being affected.

DEFINING WETLAND BANKING

The American Association of State Highway and Transportation Officials (AASHTO) in *A Guide for Trans-*

portation Landscape and Environmental Design provides a somewhat brief but exact analysis and definition as follows:

"Planning, building, and monitoring artificial wetlands takes time and money. Projects often involve small wetland losses that cannot be avoided and cannot be mitigated on site. Wetland banking can streamline the process of mitigation for these small sites. Wetland banking operates on a credit and debit system. Wetlands are the credits, and small unavoidable wetland losses are the debits.

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Most or all of the following criteria may be part of a wetland banking program:

- Wetland banking sites should normally be in the same watershed or basin as the proposed project.
- The site should be designed and constructed before credit is earned (author's note: they may be required to be functional).
- Wetland bank credits can be used for multiple impacts caused by one or more projects.
- Existing natural or manmade sites requiring enhancement and newly planned sites may be eligible for credit.
- The state transportation agency maintains the ledger. An inter-agency team of biologists tallies the credits and debits for each site.
- The state transportation agency should review applicable local and state laws with respect to wetland banking (e.g., Massachusetts Wetland Protection Act does not allow for the banking concept)."

It should be remembered that avoidance is the paramount mitiga-

tion tool, followed finally by the utilization of a wetland bank. Also important is the criteria used to measure the quality of the wetland function and value as it relates to the banking system. The Corp of Engineers Wetland Evaluation Technique (WET), Habitat Evaluation Procedures (HEP), or a combination of other methods may be used to attempt to qualify the site.

Thus, focusing on the main problem, different answers are generated depending on the testing requirements applied. A procedure must be developed that would provide a uni-

form assessment free of unnecessary or complicated regulations or requirements to assure a streamline process. The type of wetland encroachment differs greatly depending on the purpose of the acquisition. Linear acquisitions resulting from highway construction activity often require minimal encroachments, yet private development could acquire an entire ecosystem requiring a more detailed analysis and mitigation requirements.

PRIVATE AND PUBLIC SECTOR INVOLVEMENT

As a result of the ISTEA legislation, there has been a push by the public sector toward the establishment of wetland banks. What about the private sector? The principle of competition holds that profit tends to breed competition and excess profit tends to breed ruinous competition. There now exists a mechanism that will provide a form of regulatory relief for countless developers in addressing wetland mitigation. Commercial acquisitions of acceptable wetland banking sites will now be in

direct competition with public agencies' requirements and, because profit (advancement of project) factors affect both economic sectors, the cost of acceptable banking sites will logically increase.

Both sectors realize the benefits of utilizing this system to provide mitigation for wetlands needed for their projects. Also of interest is the income stream that will be produced by this form of mitigation. Will the funds generated by wetland banking be designated for future protection, establishment, research or applied toward other issues?

OWNERSHIP OF WETLAND BANKING SITES

Given that wetland banking may become more attractive as the public and private sectors and the regulatory agencies resolve differences concerning the definition and requirements, the nature of site acquisitions should be considered. There are as many ways to acquire property ownership as there are sticks in the "bundle of rights." The question is what would best address the needs of a purchaser. How much does the concept of wetland banking differ from speculative investment in property located near highway projects? Do you acquire fee simple ownership that is absolute, without limitation except to eminent domain, police power, escheat and, of course, taxation? A sale-leaseback where an investor acquires title by purchase and gives contract possession by leasehold to the grantor, or a simple option which would permit someone to buy, sell or lease property within a stipulated time with applicable terms within the agreement? The acquisition of property by options or easements relating to the wetland site should be considered initially until agency approval of the site is assured. The acquisition of acceptable sites


will logically accelerate until only marginal sites are available and the cost of banking will increase dramatically. Private sector demands for project advancement driven by construction cost and the potential for profit will compete directly with the public sectors need to advance projects toward construction.

IN SUMMARY

A concerted effort should be made toward the analysis of existing mitigation sites. Each agency should revisit established wetland sites to determine the success rate and truly monitor sites to assure their success. An in-depth study is required to assure that successful practices are developed that will ensure the success of future sites. Many questions are yet to be resolved. The use of wetland banking provides an additional tool in the search for mitigation techniques. The concept of wetland banking will be debated as well as the validity of the mitigation process itself. What will be the measurement of success? Will the concept of "no net loss" survive? Program effectiveness should be measured by analysis of specific site criteria matched by specific site requirements. Ann Redmond's article, "How Successful is Mitigation?" (*National Wetland Newsletter*, January/February 1992), provides insight into past attempts toward mitigation and extends this analysis to the banking process.

Wetland banking should be utilized only as a last resort for mitigation, and future projects should be closely monitored to assure that the goals established by the mitigation process are achieved. It was interesting to note that the Florida Department of Environmental Regulation's Bureau established a sequencing for its projects with (as it should be) wetland creations as the last resort. Per-

haps Joy B. Zedler provided the best insight when she stated, "I'm not suggesting that all wetlands restorations are doomed to failure, but I do want to make the distinction between restoration for its own sake versus mitigation in the regulatory context, where restoration simply becomes a license to destroy habitat somewhere else."

We can readily see that wetland banking as a mitigation tool will generate additional debate from both sides of the wetland issue. Its success or failure rest on actively monitoring the sites on a functional basis, the establishment of an acceptable way to measure the success or failure, and the actual utilization of established banking systems. We live in interesting times! 

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