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Environmental Banking

By Mark G. Dotzour and Sunshine Manning

Conflicts between developers and environmentalists have resulted in a few epic battles during the past half century (remember the spotted owl?). But a relatively new concept called environmental banking offers a compromise that both sides can embrace.

Since environmental protection legislation was initiated in the early 1970s, developers wanting to build in environmentally sensitive areas such as watersheds, wetlands or habitats of threatened species on public or private lands have faced a mountain of federal regulations governing permitting and approval procedures. The law requires that they recreate the destroyed ecosystems or habitat on the same parcel as the development. This process, called onsite mitigation, can delay construction from two to seven years and drives up overall project costs significantly.

Any development that adversely impacts a critical habitat or protected species must be approved by local, state and federal authorities including the U.S. Army Corps of Engineers and, in some cases, the Department of the Army, Environmental

Protection Agency, Natural Resources Conservation Service, Fish and Wildlife Service, National Marine Fisheries Service and the National Oceanic and Atmospheric Administration.

The Corps of Engineers determines the ratio at which habitat must be recreated. This acreage ratio is always greater than one-to-one, producing a "net gain" of critical habitat and threatened species. It is often five-to-one but may be even higher.

Now developers have a second option. They can purchase "credits" in a nearby environmental bank.

Enter Environmental Banking

An environmental bank is an area of publicly or privately owned land permanently reserved for the protection of a *critical habitat*, an area supporting plant and animal species with special ecological importance. Environmental banks are sometimes referred to as mitigation banks and are categorized by types, such as wetland, upland and species banks. The critical habitats that make up an environmental bank are

TO COMPENSATE FOR CRITICAL HABITAT lost because of development, developers can purchase credits in an environmental bank within the affected watershed.



restored, created, enhanced or preserved to make up for other habitats lost to development.

Developers buy credits at any environmental bank within the same watershed as their planned developments. Typically, one credit is equal to one acre of restored critical habitat, but sometimes credits equal a specified number of members of a threatened species. Once the credit has been paid for, the developer is released from all permit responsibilities and can proceed immediately with the project.

Municipalities, landowners or investors can create environmental banks by buying a suitable tract of land, improving the land to make the desired environment for plants and wildlife and then selling credits on the open market to developers who need to compensate for habitat, species or both lost during development projects in that region. Some environmental banks are public, nonprofit banks, that support government agencies, including the Department of Transportation, which must compensate for habitat lost because of highway construction. Others are for-profit ventures.

Evolution of Environmental Banking

Environmental degradation in the wake of the post-World War II development and population boom led to a host of federal environmental and land-use regulations. The Clean Water Act (CWA; 1972) mandates that any unavoidable damage to wetlands and aquatic resources be mitigated — that is, compensated for. The Endangered Species Act (ESA; 1973) prohibits the “taking” of any listed species, whether by destroying the ecosystem on which the species relies or by



THE LARGE, CONTIGUOUS ecosystems of most environmental banks tend to produce higher success rates in preserving sensitive species and habitat than the isolated ecosystems resulting from onsite mitigation.

destroying the plants or animals directly. These laws apply to public and private lands and therefore affect residential, commercial and industrial development, highway improvement and other public projects such as shoreline erosion control.

Shortly after the adoption of the CWA and the ESA, many developers deemed regulatory measures unrealistic in light of pressing development trends. Subsequent legislation was more accommodating to development. For example, in 1982, Congress passed an amended ESA to allow for the “incidental taking” of listed species.

Environmental banks are a byproduct of environmental protection legislation. Forty-six environmental banks were

Private, For-Profit Environmental Banks in Texas

Fort Worth District

Klamm Mitigation Bank, Smith County
Byrd Tract Mitigation Bank, Smith County
Hawkins Tract Mitigation Area, Smith County
Anderson Tract Off-Site Mitigation Project, Smith County

Galveston District

Katy-Cypress Mitigation Bank, Houston
Palacios Wetlands Mitigation Bank, Matagorda County
Neches River Cypress Swamp Preserve, Neches River
BFI Mitigation Bank (Katy Prairie Mitigation Bank), Harris County

Omaha District

Hobson Wetland Mitigation Bank, Fort Worth

Focus: Palacios Wetlands Mitigation Bank

The Palacios Wetlands Bank is the largest environmental bank in Texas, consisting of 2,564 contiguous acres of created, privately held wetlands in Matagorda County. The bank is close to a turtle refuge and provides habitat to migratory birds following the Texas birding trail. Before the property was converted, it was planted in corn and sorghum.

The land was converted to wetlands through cooperation and consultation with Critical Habitats, Inc., of Seattle, Wash. Seven state and federal agencies were involved in designing the bank, negotiating permits and evaluating habitat. Total purchase and conversion costs were under \$4,000 per acre.

Final approval for the bank is still pending because of a disagreement between the proprietor and the Environmental Protection Agency regarding the sales price per credit acre. Similar habitats in Florida sell for around \$40,000 per credit acre.

created in 1993; by spring of 2000, more than 400 such banks existed nationally. The Institute for Water Resources estimates that one half of these banks were created as private, for-profit endeavors. Federal agencies formally endorsed the concept of entrepreneurial environmental banking in the 1990s, prompting the increase in the number of environmental banks created.

Win-Win Situation

To compensate for critical habitat lost because of development, developers can create their own environmental banks using land they purchase or already own within the affected watershed. This entails hiring environmental consultants to design the habitat and then acquiring necessary approvals from local, state and federal agencies.

With the required permits in hand, work begins on creation or restoration of the habitat, including moving earth and

planting native vegetation. Once the area is functioning as a viable habitat, final approval for sale of credits is sought.

Ultimately, onsite mitigation helps minimize the destruction of critical habitats but creates smaller, isolated ecosystems that have lower success rates than the larger, contiguous ecosystems of most environmental banks. Consequently, environmental banks may more effectively maintain a region's environmental integrity.

Environmental banks create profit opportunities, while allowing environmental experts to oversee the protection and preservation of threatened habitats and species. In short, environmental banking enables the private sector to become the economic beneficiary of environmental stewardship. ♣

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