

# A Practical Guide to Habitat Conservation Banking Law and Policy

J.B. Ruhl, Alan Glen, and David Hartman

**W**e will trade you ten acres of lush Texas Hill Country for a 100-yard run of the Columbia River. Sound silly? It would not be if we were trading time-shares in a Texas dude ranch outside of Austin and a forest retreat upriver from Portland. People trade those kinds of apples for oranges all the time. But if we are talking about habitat for wildlife, particularly endangered and threatened wildlife, our proposed trade violates all sensibilities. What good is a run of the Columbia River to an endangered warbler in Texas? Yet, perhaps it is not out of bounds to think about trading endangered species habitat when the trade is closer to apples for apples than our proposed cross-country swap involves. That, of course, is the premise of what has come to be known as “habitat conservation banking,” or “conservation banking” for short.

A conservation bank is an area of habitat that has been conserved and managed for the conservation of identified natural resource values, the benefits of which are used to offset negative impacts to the resource occurring on other areas from land use activities. While this kind of conservation activity might and often does occur in purely voluntary settings such as land trusts, conservation banking is usually associated with a regulatory program that prescribes conditions for land uses that adversely affect the habitat of a particular species of concern. Usually, as with conservation banking carried out under the Endangered Species Act (ESA), 16 U.S.C. §§ 1531–1544, the conditions include obtaining approval for the land use activity from an administrative agency, which frequently carries the price of having to mitigate for the adverse impacts through, among other things, securing compensating habitat values either on the project location or on land within some ecologically relevant area.

Conservation banking is designed to facilitate this compensatory mitigation process. The conservation values accruing to the species within the bank habitat area are translated by the regulatory authority into quantified “credits,” and each development project’s negative impacts to the species are quantified through the permitting process into

mitigation needs or “debits.” The debit holders can retire their regulatory “debt” by purchasing an offsetting number of credits from an owner of a bank located within a specified geographic area with the market, rather than the regulators, determining the price of the credits. Presumably, bank owners enter the banking enterprise because they believe their cost of generating credits through land acquisition and resource management will be more than amply recovered in the credit market given the demand for and supply of credits. The thinking is that purchasing bank credits will provide a less expensive means of satisfying mitigation requirements for projects in need of regulatory approvals than would other measures such as dedicating project lands or purchasing and managing conservation lands directly, thus generating the demand for credits.

To make this a three-way win, regulatory agencies believe that conservation banking is good for the species as well, as it promotes a more orderly system for securing permanently dedicated conservation lands and attracts persons with true expertise to the “industry” of creating and managing those lands. It is common, therefore, to hear conservation banking described as “a free-market enterprise that offers landowners economic incentives to protect natural resources, saves developers time and money by providing them with certainty of preapproved compensation lands, and provides long-term protection of habitat.” U.S. Fish & Wildlife Service, Notice of Availability, Guidance for the Establishment, Use, and Operation of Conservation Banks, 68 Fed. Reg. 24,753, 24,753 (May 8, 2003) (*Conservation Banking Guidance*), available at [endangered.fws.gov](http://endangered.fws.gov).

In this sense, conservation banking is the logical extension of the more familiar wetlands mitigation banking program the Corps of Engineers has officially endorsed and operated for about a decade under Section 404 of the Clean Water Act, which regulates the discharge of fill material in waters of the United States. Although the Corps has long applied a mitigation policy to regulated fill of jurisdictional wetlands, initially that policy focused on, even preferred, mitigation on the site of the project seeking a Section 404 permit. Over time, however, the Corps found that the on-site mitigation preference led to a proliferation of “postage stamp” mitigation sites that presented serious administrative monitoring and enforcement concerns. Indeed, many studies have shown that on-site mitigation generally failed to produce compensatory wetland resource values. See U.S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT, SUCCESS OF CORPS-

---

*Mr. Ruhl is the Matthews & Hawkins Professor of Property at Florida State University College of Law in Tallahassee, Florida, and may be reached at [jruhl@law.fsu.edu](mailto:jruhl@law.fsu.edu).*

*Mr. Glen is a partner and Mr. Hartman an associate in Smith, Robertson, Elliott, Glen, Klein & Bell, L.L.P. in Austin, Texas. They may be reached at [aglen@smith-robertson.com](mailto:aglen@smith-robertson.com) and [dbartman@smith-robertson.com](mailto:dbartman@smith-robertson.com), respectively.*

REQUIRED WETLAND MITIGATION IN NEW ENGLAND (2003); WASHINGTON DEPARTMENT OF ECOLOGY, WASHINGTON STATE WETLAND MITIGATION EVALUATION STUDY (2002); NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, CREATING INDICATORS OF WETLAND STATUS (QUANTITY AND QUALITY): FRESHWATER WETLAND MITIGATION IN NEW JERSEY (2002).

So, during the 1990s, the Corps gradually moved first to an off-site compensatory mitigation policy, and eventually toward the mitigation banking concept, officially blessing it in a 1995 multiagency policy laying out the basic design and implementation standards. See Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 60 Fed. Reg. 58,605 (Nov. 18, 1995). For much the same reason, the U.S. Fish & Wildlife Service (FWS), which administers the Endangered Species Act for terrestrial and freshwater species, in 2003 adopted its *Conservation Banking Guidance*. (The Secretary of Commerce has statutory authority for marine and anadromous species; this article focuses on FWS, which operates under authority of the Secretary of the Interior.)

In another sense, however, conservation banking is very much *unlike* wetlands mitigation banking. The wetlands program focuses on retaining the balance of ecological functions wetlands provide in an ecologically relevant region, usually a defined watershed unit, and thus adopts a special emphasis on and preference for trading of credits and debits in like kind wetlands located within the bank's delineated "service area." Conservation banking, by contrast, is primarily about improving the status of the target species through habitat management, and because a species may depend on different habitat types in different seasons or during different stages of its life cycle, it may very well be the case that trades of different types of habitats, or of habitats in substantially different locations, make sense for the species. What looks like trading an apple for an orange to people might not seem so wildly divergent to a threatened migratory songbird. So conservation banking policy could not simply piggyback on the wetlands program for all its basic design features. Nor could conservation banking necessarily rely on the successes and failures of the wetlands mitigation banking program for guidance. In short, while the idea for conservation banking may have gotten rolling thanks to the wetlands program experience, at least part of the wheel had to be reinvented.

Focusing on the ESA as the main impetus for conservation banking to date, this article takes a close look at the conservation banking wheel as it is currently designed and in use. We first examine why and under what ESA authorities interest in conservation banking has emerged as a policy consideration and as an economically desirable option for endangered species conservation. Then we explore the basic nuts and bolts of the *Conservation Banking Guidance* FWS issued for conservation banking under the ESA—when and under what circumstances does the agency think a conservation bank makes sense and how does one put together a bank proposal for agency review? We next sum-

marize the existing landscape of conservation banking under the ESA program in terms of numbers, types, locations, and experiences. Then, based on our experiences with conservation banks—using one in particular as a case study—we close by offering practical advice about the promises and pitfalls one might encounter from assembling a conservation bank proposal to operating an approved bank.

### *Why Conservation Banking?*

Demand for habitat conservation banking under the ESA, which runs strong within FWS, among landowners and developers, and in a number of conservation organizations, arises pursuant to ESA's regulatory constraint on land use and its associated permitting programs. Section 9(a)(1) of the ESA prohibits the "take" of species of fish and wildlife FWS has identified and officially listed as endangered, and Section 4(d) extends similar protection to species of fish and wildlife listed as threatened. See 16 U.S.C. §§ 1533(d) and 1538(a)(1). FWS may permit activities which otherwise violate the take prohibition through interagency consultation under ESA § 7(a)(2), or through issuance of incidental take permits, also known as habitat conservation plan (HCP) permits, under ESA § 10(a). See 16 U.S.C. §§ 1536(a)(2) and 1539(a).

Section 7(a)(2) requires all federal agencies to consult with FWS to ensure that actions they carry out, fund, or authorize do not "jeopardize" the continued existence of listed species or "adversely modify" their critical habitat. If FWS concludes that the proposed action will not jeopardize the survival of the species but will result in take of the species, FWS must issue an incidental take statement authorizing or allowing the federal agency to carry out the action subject to conditions FWS considers necessary or appropriate to minimize impacts to the species. FWS often suggests habitat compensation as such a condition.

Similarly, under Section 10(a) of the ESA, proponents of projects with no federal nexus who want to conduct activities on their land that might incidentally "take" a listed species may obtain an HCP permit from FWS prior to conducting such activities. To obtain a permit, the applicant must develop a habitat conservation plan that specifies, among other things, the impacts that are likely to result from the taking and the measures the applicant will undertake to minimize and mitigate, to the maximum extent practicable, the impacts of such taking. Once again, FWS often suggests habitat compensation as one condition of the incidental take approval.

Taken together, the proscriptive force of Sections 9(a)(1) and 4(d) and the implementation of regulatory approvals under Sections 7(a)(2) and 10(a) can lead to significant demand for habitat mitigation to offset impacts to listed species found in a geographic region, particularly a region that is experiencing rapid urbanization or intensifying resource uses. Providing such mitigation, however, is often problematic, time-consuming, and expensive. Without banking, project proponents would often find it

necessary either to conserve areas of the project otherwise desirable for project development purposes or to acquire and provide for the perpetual conservation of property otherwise unrelated to the activity in question.

As an alternative to this piecemeal, transaction-by-transaction approach to species mitigation, conservation banks offer several benefits to both project proponents and the species. Conservation banks, in comparison to the piecemeal approach, generally can be expected to result in larger preserves and thus better habitat connectivity. Off-site conservation banks often provide the only practicable mitigation option when the project cannot accommodate or produce fully compensatory on-site conservation values, or when the use of the bank is environmentally preferable to on-site measures even if they could be produced. For project proponents, conservation banking saves time and money by identifying mitigation areas already under approved conservation management schemes, increasing options for meeting their mitigation needs, and simplifying the regulatory compliance process through a transparent, freely negotiated purchase of credits.

Hence, it was no surprise that the ESA ultimately went the way of the Section 404 wetlands program in gravitating to conservation banking. The origins of conservation banking with an endangered species focus can be traced to California in the early 1990s. With California already home to a multitude of listed species, the prospect of the additional listings prompted then Governor Wilson to advance legislation in 1991 that would provide a more proactive and orderly response to the state's growing species conservation challenge. The legislation, known as the Natural Community Conservation Planning Act, CAL. FISH & GAME CODE §§ 2800–2835, focused on establishing large preserves in different subregions of the coastal sage scrub ecosystem found in several southern California counties. But assembling large preserves in the heart of the nation's most expensive real estate would be no mean feat, as neither public financing nor regulatory controls were politically attractive options. At the same time, however, some financial institutions had become unwilling owners of failed development properties in southern California and were looking for a way to make the most of what was for all practical purposes unlikely to be approved for development given the presence of high-quality endangered species habitat. A marriage was born—in April 1995, the Resources Agency and California Environmental Protection Agency announced the state's *Official Policy on Conservation Banks*. See The Resources Agency and California Environmental Protection Agency, Official

---

*While the market-based features of trading programs offer substantial environmental and economic potentials, the design and implementation of habitat conservation banking must be careful and cautious.*

---

Policy on Conservation Banks (Apr. 7, 1995), available at <http://ceres.ca.gov>. A mere three pages long, the policy charted a broad scope for conservation banking, including wetlands, endangered species, and coastal resources generally. Because of its breadth, however, the policy provided few details beyond establishing the basic framework of banking; that is, that the different resource agencies can approve a bank, designate credits, and permit trades in or sales of the credits.

Building on the California policy and several case studies of the early California conservation banks, two environmental policy organizations, Environmental Defense and Sustainable Development, jointly issued a comprehensive report on conservation banking in November 1999, later published as Michael J. Bean & Lynn E. Dwyer, *Mitigation Banking as an Endangered Species Conservation Tool*, 30 *Envtl. L. Rep. (Envtl. L. Inst.)* 10,537 (2000). Their work grounded conservation banking in the theoretical foundations of wetlands mitigation banking, but used methodical policy analysis and detailed case studies to explain why conservation banking in the endangered species context demands some evolution and adaptation of the wetlands program framework. The report went so far as to provide not only a thorough and thoughtful draft policy for adopting conservation banking under the ESA, but even a model endangered species conservation banking agreement FWS could use to approve and regulate banks and their establishment and sale of credits.

FWS was no stranger to banking, having been one of the agencies that jointly promulgated the 1995 federal wetlands mitigation banking guidance. The agency also was well aware of the ESA listings that prompted California to move toward a broad conservation banking policy. During the second Clinton administration, therefore, FWS included conservation banking as one of the many policy innovations Secretary of the Interior Bruce Babbitt put in play for the ESA but, unlike initiatives such as the Safe Harbors and No Surprises policies, no official position statement materialized. Under Secretary Gale Norton, however, FWS in the incoming Bush administration picked up the conservation banking idea as an appropriate fit for the Interior Department's then new "4 Cs" mantra of "conservation through cooperation, communication, and consultation." See U.S. Department of the Interior, *Strengthening Citizen Stewardship and Cooperative Conservation*, available at [www.doi.gov](http://www.doi.gov). The agency soon approved several endangered species conservation banks on an ad hoc basis, including the Hickory Pass Ranch Conservation Bank discussed in more detail later, and then, in May 2003, issued the *Conservation Banking*

Guidance to promulgate a coherent and detailed policy framework. The department billed its issuance of the policy as “a hallmark event in the 30-year history of the Endangered Species Act.” U.S. Department of the Interior, Press Release, *Interior Department Provides New Guidance to Promote Development of Conservation Banks* (May 8, 2004), available at [www.doi.gov/news](http://www.doi.gov/news). See also U.S. Fish & Wildlife Service, *Conservation Banking: Incentives for Stewardship* (Sept. 2004), available at <http://endangered.fws.gov> (fact sheet on the *Conservation Banking Guidance*). Endangered species conservation banking had thus arrived as a fully developed sibling to the wetlands mitigation banking program.

### *Nuts and Bolts of Conservation Banking Policy*

Conservation banking resembles the “cap and trade” model of regulatory trading markets, in which regulation places a maximum limit on some specified environmental harm, allocates the right to produce the harm in the form of credits distributed on some basis to a specified community of regulated parties, and then allows them to use their credits or reallocate the pollution rights they represent through market transactions in the credits. The idea behind such regimes is that some producers of the harm—say, pollution from the manufacture of widgets—will figure out how to produce less pollution without increasing their manufacturing costs, whereas other widget manufacturers may for a variety of reasons need to exceed their allocated pollution harm. The more efficient manufacturers can thereby profit by selling excess units of pollution harm in the form of their unused credits to those in need of greater allocations. The program thus rewards technological and management innovations that allow widget production at more efficient pollution levels.

Conservation banking, however, diverges from cap-and-trade pollution trading programs in several respects. First, it is not possible to decree a cap on habitat degradation that can either be enforced through regulation or, if it could be enforced, will ensure the conservation of a species. It cannot be enforced through regulation because natural conditions such as fire and drought may play a large role in habitat supply conditions. Even if anyone could ensure a perpetual supply of a minimum habitat base for a species, natural conditions such as disease and species competition may affect how much habitat the species needs to survive as a species. Second, unlike trading of pollutants that are of concern mainly for ambient effects, in which a pound of pollutant X from widget plant A can reliably be treated as worth the same in terms of environmental harm as a pound of pollutant X from widget plant B, it is not as easy to equate one patch of habitat for a species with another patch of habitat in terms of conservation value. Species can be picky, and they cannot tell people their value system.

Finally, conservation banking depends on the generation

of an environmental good—the credits derived from the bank habitat—to be traded as an offset for an environmental harm—the debits representing loss of habitat from development. To the extent the regulatory authority hopes to keep the banking market alive and active, therefore, potential bankers have to be convinced that the agency will approve future land use projects with mitigation conditions at a sufficient level to justify the up-front capital expenditure required to create the bank and obtain agency endorsement of its credits. There is some concern when the agency both approves the bank and approves the development projects using the bank that the agency might loosen up the regulatory standards for both in order to keep the market primed. All of these concerns have led some commentators to suggest that, while the market-based features of trading programs in general surely offer substantial environmental and economic potentials to all concerned, the design and implementation of habitat conservation banking in particular must be careful and cautious. See James Salzman and J.B. Ruhl, *Currencies and the Commodification of Environmental Law*, 53 STANFORD L. REV. 607 (2000).

Perhaps the first careful effort to design a conservation banking policy is found in the exhaustive study Environmental Defense and Sustainable Development produced in 1999. See Bean & Dwyer, 30 *Envtl. L. Rep.* 10,537. Their study considers virtually all the key questions one should consider given the experience of wetlands mitigation banking and the different needs and goals of endangered species conservation banking, including: Should the preservation of existing habitat generate mitigation credits? How large should endangered species conservation bank “service areas” be? What is the “currency” for conservation banking credits and debits? Should conservation banks generate credits for activities on public lands? Should mitigation credits be sold before they are earned? Should mitigation credits be given only for permanently protected habitat? Should banks be available only for some kind of impacts?

Reasonable minds can differ over the answers to these questions. Although it does not adopt the answers Environmental Defense and Sustainable Development suggested in all respects, most observers find that FWS’s *Conservation Banking Guidance* reflects a thoughtful approach to conservation banking. For example, the guidance provides that conservation banks can be created in numerous ways, including: acquisition of existing habitat, protection of existing habitat through conservation easements, restoration or enhancement of disturbed habitat, creation of new habitat in some situations, and prescriptive management of habitats for specified biological characteristics. Banks can be established by public and private entities on public or private land, although banks on federal lands will be treated under a case-by-case approach until FWS develops more detailed policy for that setting. The preference in conservation biology is for conservation of large, unfragmented habitat blocks, so banks should be configured in that manner or to promote such blocks by establishing connections between smaller habitat areas. FWS also

believes that including buffer areas around the core bank habitat, even consisting of habitat not suitable for the target species, will improve the bank's conservation performance.

To establish a bank once the location and conservation strategy are identified, the prospective conservation bank landowner prepares a conservation bank agreement that includes items such as a management plan for the property, the funding necessary to carry out such management in perpetuity, activities allowed to occur on the lands, and long-term monitoring and reporting requirements for management objectives. A number of biological criteria govern the "currency" for issuance of bank credits, including habitat quality and quantity, species covered, conservation benefits (including contribution to regional conservation efforts), property location and configuration, and available or prospective resource values. Conservation banks may be divided into subareas and implemented in phases. This phasing offers flexibility to the landowner who may not be sure of sufficient demand to use all of the potential credits, and also to FWS where there is uncertainty regarding the level of future biological need within a specific area.

Once established, bank credits generally are available to offset any activity regulated under the ESA for which off-site mitigation of the habitat provided in the bank is appropriate. Geographic areas in which credits may be used to offset project impacts, referred to as bank "service areas," should generally encompass the recovery plan designated "recovery unit" within which the bank occurs. In order to allow trading apples for apples, or as close to that as banking allows, projects in need of mitigation negotiate with FWS to determine the amount of mitigation needed using the same matrix of biological considerations used to evaluate a bank's credits. A project's mitigation requirement might be expressed as a ratio requiring the project to secure, say, four credits of habitat for a species for every one debit of habitat degradation the project causes. From there the project can enter the credit market for the particular service area and negotiate prices.

Because one purported advantage of banking versus piecemeal on-site mitigation is administrative enforcement efficiency, the *Conservation Banking Guidance* also focuses on long-term management and monitoring. Banks eventually sell all available credits, but must nonetheless maintain the conservation values for which the credits were awarded in perpetuity. The bank proposal thus must include provisions for setting species and habitat performance goals, monitoring bank management performance, and making management changes where necessary, as well as for demonstrating that funding for these activities is secure for the long haul. FWS anticipates the bank sponsor and any other parties to the bank agreement will establish a Conservation Bank Review Team (CBRT) to oversee all stages of the bank from establishment through this long-term management and monitoring process.

Conservation banking must be placed in the larger regulatory and procedural contexts. For example, the *Conservation Banking Guidance* purports to establish a poli-

cy only for the ESA, and thus state, tribal, and local laws may either regulate the bank or allow entities they regulate to take advantage of bank credits. In such cases, FWS will invite the relevant agencies to join the CBRT. As for federal laws, creation of a conservation bank will not necessarily trigger review under the National Environmental Policy Act or consultation under ESA § 7(a)(2). This allows for a streamlined bank establishment procedure that is essentially a contractual relationship between the applicant and FWS. The activities using conservation credits under the bank, however, remain subject to appropriate separate environmental reviews and approvals under the ESA, NEPA, and other laws.

Public review and comment of banking and bank transactions is provided in two ways. Bank establishment itself does not require public notice or opportunity for review and comment, but FWS retains the option of publishing public notice of its intent to approve a bank if it anticipates controversy. Because FWS must publish notice of proposed HCP permits issued under Section 10(a)(2) of the ESA, FWS anticipates that its notices will describe the applicant's intent to use bank credits to satisfy its mitigation needs. Consultations under ESA § 7(a)(2), by contrast, do not require public notice before approval of any incidental take authorization, but they must satisfy the public notice and comment requirements of NEPA. Overall, therefore, public review and comment in bank establishment and credit sales is less direct than many environmental advocates may desire.

### *The Conservation Banking Experience*

Prior to issuance of the *Conservation Banking Guidance*, roughly sixty conservation banks had been approved by the FWS, with the vast majority of those located in California, while only a modest number of conservation banks existed outside of that state. Interest in conservation banks is growing nationwide, however, and new banks are under development. According to FWS personnel, the agency currently is processing roughly twenty new conservation bank applications, approximately one-half of which are located in states other than California.

FWS and other government agencies have yet to compile publicly available inventories of conservation banks. Fortunately, two recent studies provide a comprehensive review of ESA conservation banks in the United States as of December 2003. See Jessica Fox & Anamaria Nino-Murcia, *Status of Species Conservation Banking in the United States*, CONSERVATION BIOLOGY (in press); NATIONAL FISHERIES SCIENCE CENTER, NOAA FISHERIES, A NATIONWIDE SURVEY OF CONSERVATION BANKS (2003) (prepared by Diana Lane et al., of Stratus Consulting Inc. for the agency). The study by Fox and Nino-Murcia identified seventy-six conservation banks, thirty-five of which are established under a conservation bank agreement approved by FWS. Of these thirty-five conservation banks, the size ranges from 25 acres to 10,400 acres for an average size

encompassing 1,129 acres. The conservation banks encompass a total of almost 40,000 acres and cover twenty-two threatened and endangered species. The banks have been established by a wide array of landowners, including family ranches, municipalities, timber corporations, nongovernmental organizations, and governmental entities. Prices for conservation credits range from \$3,000 to \$125,000 per acre, and 65 percent of the conservation banks maintain a credit ratio of 1 credit per acre. The Wright Preservation Bank, established in a particularly important ecological area for three species in Sonoma County, California, offers the highest ratio of 1 credit for every one-tenth of an acre.

Perhaps most important of all, half of the banks studied—representing more than 27,000 acres—reported that, in the absence of the opportunity to engage in banking, they would have resorted to developing the land to other uses. This kind of response suggests that conservation banks will proliferate in areas like Texas, Florida, Alabama, and other areas of the Southeast and Midwest where the number of rare species, demographics, and value of real estate point in the direction of an opportunity for habitat entrepreneurship. For similar assessments, see Michael Bauer, Jessica Fox, & Michael J. Bean, *Landowners Bank on Conservation*, 34 *Envtl. L. Rep. (Envtl. L. Inst.)* 10,717 (2004); David S. Wilcove & J. Lee, *Using Economic and Regulatory Incentives to Restore Endangered Species*, 18 *CONSERVATION BIOLOGY* 639 (2004).

### *Practical Considerations*

The Hickory Pass Ranch Conservation Bank near Austin, Texas, approved by FWS in April 2002, provides an example of a successful conservation bank that helped form the model for the *Conservation Banking Guidance*. The conservation bank agreement between FWS and the Johnston family covers the approximately 3,000-acre Hickory Pass Ranch, which is located within the acquisition area of the Balcones National Wildlife Refuge (Refuge) adjacent to existing Refuge parcels. The ranch provides prime habitat for the endangered golden-cheeked warbler. The creation of the Hickory Pass Ranch Conservation Bank offers several benefits to the warbler. Land may be dedicated under conservation easements in phases on a one-acre to one-credit basis, as and when sufficient demand for conservation credits is identified to justify dedicating parcels to the conservation bank. The agreement includes a detailed, extensive management plan that includes a highly involved advisory committee. The landowner may use the land for environmentally acceptable uses, including establishing home sites and normal ranching practices such as grazing of livestock. Finally, the bank helps conserve scarce federal funds. Due to budgetary constraints, not enough federal funding is available to acquire parcels slated for inclusion in the Refuge. The conservation bank allows permanent conservation of private lands adjacent to the Refuge, complementing the conservation of Refuge parcels purchased with scarce fed-

eral funds. The authors were part of the team of consultants that helped the Johnston family create this model.

Thus far, the Hickory Pass Ranch Conservation Bank has provided mitigation to offset adverse impacts of a key state highway, a major county road, and private development. Indeed, the conservation bank received the “Overall” award at the 2004 Austin Business Journal Commercial Real Estate Awards in recognition of its key benefits to the central Texas environment, and in its press release announcing the *Conservation Banking Guidance*, FWS cited the Hickory Pass Ranch Conservation Bank as an example of a successful endangered species conservation bank.

But win-win outcomes like the Hickory Pass Ranch Conservation Bank do not simply fall out of the sky. Successful implementation of a conservation bank requires much more than merely the possession of and willingness to conserve good quality endangered species habitat. Stated plainly, the bank needs to make money for the bankers. Indeed, in many circumstances the prospective banker is, by attempting a for-profit conservation bank, foregoing valuable tax treatment for charitably dedicating the same land for conservation purposes. Moreover, for banks to work effectively as a conservation tool, they must be sufficiently profitable to continue to attract landowners to create more banks. Predicting the activity of a given industry such as real estate development in a given area is difficult enough. Unfortunately, due to the unpredictable and subjective nature of regulatory actions under the ESA, predicting the long-term market for the credits of a given conservation bank is beyond difficult. Litigation and changes in policy direction can create or close potential mitigation markets with remarkable speed. Ideally, a landowner creates a conservation bank only after there is some reasonable likelihood that there will be sufficient demand for the credits. Several banks, however, have yielded disappointing to nonexistent returns due to the lack of a robust demand for the credits.

In short, successful conservation banking is part science and part real estate development—one skill without the other will not work in this industry, and they must work hand-in-hand at every stage. Their most critical juncture is at the planning stage, when site assessment and market assessment are necessary for any feasibility evaluation of a proposed conservation banking property. Both of these take an investment of time and money long before any credits are sold—for example, Fox and Nino-Murcia report that the average time to establish ESA conservation banks is a little over two years. Hence, conservation banking is not a hobby. It is a serious and potentially risky real estate venture.

Site assessment involves a survey of the resource base on the target property and identification of resource enhancement opportunities. The costs of improvement and long-term management then must be assessed. Assuming there is a cost-efficient strategy for creating resource values on the property, the property itself then must be evaluated in terms of what it would contribute to the overall conservation strategy for the locale and region.

Is it large enough to matter? Does it provide habitat connections between existing preserves? Is it high-quality habitat? In other words, is FWS likely to value the addition of this property to the conservation base?

Market assessment involves an evaluation of demand for the bank's potential stream of credits. The potential banker must survey the existing resource base of the region and compare that to planned and future development projects in order to assess the expected future habitat impact trends. If it appears that demand for habitat mitigation will be strong, the expected cost of bank credits must be compared to the alternatives from which development projects might choose, such as on-site mitigation, direct acquisition by projects of off-site property, money payments to conservation organizations that may agree to acquire and manage appropriate mitigation lands and, of course, other conservation banks.

The Hickory Pass Ranch Conservation Bank provides a good example of the value of careful site assessment and market assessment. The property was blessed with high resource values and a proximity that FWS cherished. Prior to bank creation, the owners contacted various attorneys and consultants actively involved in development projects in the region that required ESA permitting for impacts to the golden cheeked warblers. The owners also discussed potential demand with FWS and were able to determine that there was pent-up demand for warbler mitigation and that the available alternatives were priced significantly higher than the bank's expected fees. Even then, at 3,000 acres, the bank would generate far more credits than short-term demand would likely justify. Accordingly, in addition to carefully evaluating current demand, the owners approached FWS with a phasing concept such that the ranch could be dedicated to the bank in phases, with the undedicated balance of the ranch remaining free for other potential uses. In this way, the owners mitigated the risk of weak demand after initial sales. The condition established by FWS, however, was that each phase of the ranch to be dedicated must, either on its own or in conjunction with adjoining already dedicated acres, be of sufficient size to provide viable, unfragmented habitat into the future. Ultimately, the parties agreed that the initial phase must be at least 500 acres. That initial phase sold rapidly and now the owners are dedicating additional, adjacent phases as credit sales warrant.

In addition to carefully gauging the market and seeking mechanisms to mitigate potential weak demand, prospective bankers should also consider carefully how to ensure perpetual, quality operation and management of the bank lands. Long-term "O&M" can be both a logistical and financial bur-

den, yet it can also be critical to the bank's biological success. The owners of the Hickory Pass Ranch Conservation Bank, working with FWS, devised mechanisms to ensure that both the financial and academic resources would be in place to ensure successful, perpetual O&M. Bank O&M is funded by an assured cash endowment augmented with a portion of each credit sale. In addition, the bank created an advisory committee comprised of agency, academic, and consulting biologists. Finally, the Hickory Pass Ranch Conservation Bank created a process of periodic reviews and recrafting of the management plan so that the plan can adapt as circumstances or new information arises.

Preservation of an area for the benefit of a species often does not foreclose other beneficial uses. Depending on the nature of the habitat and species in question, potential retained uses on conservation bank land could include, at various levels of intensity, grazing, timber harvest, hunting, tourism, and even low-density housing. In the case of the Hickory Pass Ranch Conservation Bank, the owners and FWS ultimately agreed that the owners would retain the rights to graze the land up to a specified stocking level, to continue white-tailed deer hunting, and to build a small number of houses within constrained building sites. These retained uses allow the owners to continue to enjoy the bank property as well as provide an opportunity to supplement income from credit sales.

Conservation banks, like Candidate Conservation Agreements with Assurances and Safe Harbor

Agreements, offer an example of FWS finding administrative flexibility within the ESA to use economic incentives to foster conservation of endangered species. Fox and Nino-Mucia report that the vast majority of banks were established because of profit-making opportunities and that well over half of all bank owners would set up another bank through FWS given the appropriate property. As with any trading program, there are concerns about whether the trades really will be apples for apples in terms of environmental impact. Moreover, there is also the concern about "hot spot" impact on human populations, which in the case of conservation banking means shifting habitat values out of urbanizing areas and concentrating them in rural areas. Even if that is fine for the species of concern, is it acceptable for the people concerned? While these are not inconsequential issues, the *Conservation Banking Guidance* does appear to take an admirably thoughtful approach to conservation banking, and experiences like the Hickory Pass Ranch Conservation Bank suggest that, when done right, conservation banking is decidedly good for species and people. This may be an example of the rare event in environmental policy—consensus!

---

*Prior to issuance of the  
Conservation Banking  
Guidance, roughly sixty  
conservation banks had been  
approved by the FWS,  
the majority in California.*

---