

Business Considerations

Craig Denisoff

Introduction

Conservation banking is the art of balancing business and biology. A conservation bank site must have good ecological and business fundamentals in order to succeed. Both the biological habitat and the market for selling credits must be conducive to banking from the very early stages of the project. Understanding the balance between business and biology is important not only to the potential conservation banker but also to the governmental entities that entitle and oversee this new and developing green industry.

It is fairly well accepted that a high quality landscape in a managed conservation bank can provide a number of ecological benefits for species over the traditional on-site or small, postage stamp mitigation (Fox and Nino-Murcia, 2005). It is also well established that conservation banks offer several economic benefits over smaller, individual-species mitigation projects.

First, the permitting and land management of large conservation banks provides economies of scale, by spreading planning, permitting and implementation costs over more acres, thereby reducing the average per unit cost. Second, by permitting one large project, you reduce the time costs of mitigation and can pass along those savings to both public and private sector clients that need mitigation. Third, because the project is typically established in advance of impacts, the higher ratios applied to mitigation projects due to temporal loss of habitat or uncertainty may be reduced, thus lowering overall costs to the credit buyer and providing a competitive advantage over other mitigation alternatives. Finally, and possibly most valuable, a conservation bank provides certainty to a developer who needs species mitigation by providing severance of liability, thus increasing the demand for the product and providing a competitive advantage over other forms of mitigation. When a conservation bank is approved by the agency, the banker takes on the legal and financial responsibility for successful mitigation.

Even with the inherent economic advantages of larger conservation banks, conservation banks are not always a good business venture. For example, while large-scale retail stores offer many cost advantages over smaller retailers, larger stores do not make business sense in areas with a small customer base or specialized needs. In areas where there are other lower cost alternatives to addressing species mitigation, such as other conservation banks or government-subsidized programmes that offer the same service (species mitigation, severance of liability) at a lower cost, a conservation bank may not be financially viable. Thus, a conservation banker, like any business venture, needs to have market conditions that favour the investment and must conduct the same extensive market research and due diligence that any wise business would perform.

Costs of product

Like all production, a conservation bank has a number of cost factors that go into developing the product. The two primary costs can be broken down into materials and service. Since the primary focus of conservation banks is preservation of existing habitat, the primary material cost is the acquisition or control of land. In cases where restoration or enhancement is required, such as building wetlands habitat for a species or removing non-native invasive plants, other material costs may be incurred. The primary service costs associated with a conservation bank are (1) costs of permitting a bank; (2) cost of reports and legal documentation to support the bank; and (3) the financial assurances necessary to ensure long-term sustainability of the bank. Much of the costs of a conservation bank are the biological, financial and legal expertise necessary to document and ensure the long-term protection of the conservation bank site. The final major cost for the majority of conservation banks is the financial assurances related to future site management. This cost is found in the long-term land management endowment accounts, a non-wasting account, that is established to finance the future management and oversight of the site.

For example, the document or legal contract that establishes the conservation bank is typically comprised of the conservation bank agreement that outlines where the site is, what types of species or 'credits' it will yield, the area in which species credits can be sold, the obligations of the banker, land manager and agencies, and then all the supporting materials to ensure the legal and financial compliance of the bank. The production of the bank agreement is often highly technical and legal in nature and can cost upwards of several hundreds of thousands of dollars to develop. In addition, the negotiations and review time by the agencies, especially in areas which do not have a lot of experience in banking or lack the resources to review the banks, can take years to finalize, thereby increasing costs further.

The largest costs often associated with the bank agreements are the legal and financial documentation and compliance monies necessary to ensure the suitability and ecological sustainability of the site. The primary costs associated with documenting the viability of the site are the title reports and environmental site assessments (e.g. Phase I) associated with the land. These reports and documents

are necessary to ensure that the sites can be used for their intended habitat purposes and that there are no other uses (e.g. mineral rights, easements, right-of-way) or encumbrances that would diminish their ecological values. In addition to land title, a thorough investigation of the site to ensure that no past environmental damages or toxics issues which could hurt the target species is also required.

Drafting and monitoring the conservation easement associated with a bank also represents a major legal, and often costly, step in building a conservation bank. A conservation easement or other form of deed restriction is required by the regulatory entities to ensure the future land use is assured through compliance monitoring or reporting. This requires the drafting and review of legally binding easement or deed restrictions. The easement typically requires an easement holder and a responsible party to enforce the easement. In many areas, a governmental entity will be the easement holder. However, in recent years many nationwide and local land trusts and conservation organizations have taken on the responsibilities of holding and monitoring the conservation easement. In many cases the easement holder will require monies to provide reports to the governmental or regulatory body on easement compliance and even monies for potential legal defence of the easement if the terms and conditions are violated. Thus, fees for easement holding have risen quite substantially over the years. Costs for outside parties to hold and manage easements in certain parts of the country have actually reached six figure amounts, and, given the uncertainties associated with future legal defences of these easements, these costs should not be considered unreasonable.

Finally, the other important, and generally expensive, document to draft is the long-term management plan for site stewardship. The land management plan often includes the costs to manage the site for basic activities (e.g. fences, signage, trash clean-up, insurance, taxes, etc.), along with costs for more active future management if necessary (e.g. removal of exotic vegetation, water control structures, grazing or burn management, etc.). Given that preservation of species habitat and the future viability of habitat is the cornerstone of conservation banking, this provision gets a lot of attention in conservation banking agreements. In some instances, the costs and responsibilities of managing the land will be assumed by a local, state or federal governmental entity or a local land trust. However, in the majority of conservation banks today, an endowment account is established to pay for the yearly land management of the site.

The endowment account required to fund the long-term land stewardship of the site is one the three major cost items of a conservation bank and in some instances can exceed the costs of the land and the permitting of the bank. These non-wasting endowment accounts are separate financial accounts, typically held and managed by a third party (e.g. government agency or non-profit foundation), in which the interest only, minus the costs of inflation, are used to pay for the annual site management and monitoring. This may seem like a minor expense, but can be quite high. For example, if a site requires an estimated \$20,000 per year to manage, then an initial deposit of \$400,000 would be necessary at a 5 per cent net interest rate (gross interest minus the Consumer Price Index) for the endowment account.

It should be noted that the party holding the endowment account and the interest rates they obtain impact heavily on the price of production for a bank.

For example, if a governmental body holds the endowment in an interest bearing investment such as money markets, they typically receive a 2–3 per cent net return versus foundations and non-profits that typically hold money in conservative foundation type investments with net industry average rates of 4–6 per cent. These same differences in net percentage rate of returns can result in a doubling of costs for endowment accounts. For example, as described earlier, if \$20,000 a year is needed for land management, if it is held by a foundation or non-profit yielding a 5 per cent net rate of return the amount was \$400,000, but if it were held by a governmental entity yielding 2.5 per cent net return then the account would need \$800,000 to achieve the similar return, twice the amount if managed in a balanced portfolio.

While the average cost of service associated with a conservation bank is impossible to estimate given the variety of costs associated with each project, costs for service can run from the tens-of-thousands of dollars to over a million dollars on projects that require substantial permitting, documentation, easement and endowment fees. Thus, the costs of service and the costs of the materials, which are the land plus any capital improvements necessary, comprise the cost of production for a conservation bank.

Once the cost of production has been determined, it is time to factor in what the demand is for the product and what the market is willing and able to pay.

Market analysis

The market for endangered species mitigation and conservation banks is one of the fastest growing fields in environmental mitigation today. Unlike wetland resources, which are relatively fixed in terms of land coverage, endangered species are related to areas of the country where you have substantial population growth and economic development. Generally speaking, where you have growth, you will see development impacting existing species habitat in a manner that threatens the overall health and sustainability of the species.

Demand for species credits is determined by:

- general market conditions;
- customers;
- regulatory environment;
- competition.

Once the general demand or market for species mitigation is determined, then good financial forecasting and modelling need to be applied to determine the value of the species credits and whether the large financial investments of capital and expenses are justified by the revenues.

General market conditions

Since the credits or habitat values produced at conservation banks are typically sold on a regional basis as determined by the impacted species, it is important to understand the regional economic conditions in the area where the bank operator intends to sell

credits. As with all market-based commerce, the strength and diversity of regional economic conditions will dictate the business opportunities. Understanding issues such as projected regional population growth, economic growth, economic base and land use plans is important when it comes to determining the strength of the market.

Population growth: Species impacts, and hence demand for mitigation, are often related to human population growth. In looking at the growth rates from the various census data sets, it is important to analyse the data for real numbers versus just percentage growth and to look for growth in which land will be impacted. For example, population growth in a highly urbanized area may be accommodated by increased housing density versus growth in a suburban or rural area which may result in greater land use.

Economic growth: Economic growth will also impact land use and hence, potentially, mitigation demand. Strong economic growth will stimulate job growth, resulting in a need for more workers and housing. Residential housing along with the infrastructure to support housing and commerce are among the strongest demand drivers for mitigation. Regional forecasts on future growth are an important indicator of future mitigation demand.

Economic base: Since conservation bank credits are typically sold over a number of years, it is important to look to several year demand cycles rather than just one or two year projections. Thus, markets with diverse economic sectors (e.g. service, industry, government) have greater chances of maintaining and sustaining future economic growth than markets with only one or two major business drivers. In addition, markets with a good mix of both public (e.g. government, schools, military) and private sectors are better able to deal with economic fluctuations than areas with only one major industry or employer.

Land use: The area in which growth is projected to occur is also a very important factor in determining the demand for mitigation. Most local governments establish local land-use maps showing where future growth is expected to occur. These maps, when overlaid with habitat or species maps, can determine the type of future impacts that may occur. Areas that are planned as agriculture or open space may be a good location to site conservation banks. It should be noted that agriculture or open space does not automatically translate to good species habitat. For example, golf courses are considered open space but may not make for good habitat. In addition, areas zoned for open space and agriculture often get changed due to development pressures. Thus, there is a benefit of placing a permanent easement and ecological management on these types of lands.

Customers

Understanding the customer base for mitigation credits is another critical factor in determining the future business success of a conservation bank. The two primary customers for mitigation services are private sector developers and public infrastructure organizations.

Private sector: Residential developers represent the largest customer base for mitigation in the US. Residential developers typically require large tracts of lands for

their housing projects and are most likely to impact endangered species habitat. Commercial and industrial developers also are users of mitigation, but often their projects are more centralized and thus require less mitigation.

Public sector: The public sector is also a major user of mitigation services. Infrastructure projects such as roads, highways, water projects, sewer lines, transmission lines and other government development programmes comprise a considerable percentage of the overall mitigation market (USC: 23-133, 2001; Denisoff, 2005). Currently, there is a preference in the federal transportation authorization for the use of approved mitigation banks for projects using federal funds. Finally, in times of economic slowdowns, public works projects are often used to increase economic activity and can become a large share of the mitigation market using banks.

Regulatory environment

The other primary, and arguably most important, factor to determine mitigation demand is the level of regulatory enforcement of the existing federal and state laws requiring mitigation for impacts to endangered species and their habitats. How the respective US Fish and Wildlife Service (USFWS) offices implement the Endangered Species Act, along with the state fish and wildlife organizations, will determine the overall demand for species mitigation (USFWS, 2007). While the laws covering endangered species are federal laws, individual regions and states interpret and enforce the laws in different ways. For example, in California impacts to endangered species habitat almost always requires some form of mitigation, whereas in other parts of the US best management practices may be used to address impacts to species and habitat. Or in some cases, little or no mitigation is required.

Political environment: Regions with greater awareness and political sensitivity to environmental issues typically have many regulations and legal protections for endangered species, which lead to strong markets for species and habitat mitigation. The level of local political support for environmental issues is often expressed through the local planning or elected representatives. For example, certain local jurisdictions also have requirements associated with species or habitat, which can add to the demand for mitigation. However, in areas where there is public outcry regarding impacts to a particular species, then many projects may not be allowed to proceed and thus the demand for mitigation may be very low. Interviews with the agency regulators, along with past data on permitting activity can assist bankers in determining the past and future trends in mitigation demand.

Ecological environment: It is widely recognized that in order to have demand for species mitigation, the area needs to have species listed as threatened or endangered. However, the amount of species habitat that is threatened by development as well as the biological status of the species is extremely important to understand. For example, if a listed species is found in an area, but little future development is expected to impact that particular species, then the demand for mitigation may be low. Additionally, there may be little or no demand for species whose populations are extremely rare or are at the brink of extinction, since government policy should not allow impacts to the remaining habitat.

Competition

The existence of a conservation bank does not automatically require that a project use a bank for its mitigation needs. In fact, mitigation for species may be satisfied by a number of different methods, such as permittee responsible mitigation (e.g. project proponents implementing their own mitigation projects) or regional habitat conservation plans or 'in-lieu fee' programmes (e.g. monies in-lieu of the actual mitigation).

Understanding the extent and prices related to other forms of mitigation will dictate the amount of demand that an individual conservation bank site can expect to receive.

Permittee responsible mitigation: Given that no entity is required to use an existing conservation bank, alternative forms of mitigation need to be analysed. Given the lack of existing conservation banks nationally, the major method of addressing species mitigation is through permittee responsible mitigation. Permittee responsible mitigation is when the individual project applicants implement the mitigation themselves. Environmental consulting and engineering firms typically do this because they are responsible for assisting the clients with the upfront project permitting and therefore have a competitive advantage over many banks. Understanding the pricing structure and availability of consulting services in an area will help determine the potential demand for mitigation credits. In addition, having good relations with the consulting community as well as a cost-effective product is important in obtaining a share of the species mitigation market.

Self-mitigation: Another method of mitigation is self-mitigation, where typically a large business or government entity performs the mitigation themselves. Many large development companies and government infrastructure entities, such as transportation or water delivery agencies, contain the internal expertise to implement mitigation projects themselves. In addition, having land or the ability to acquire land, many of these larger entities also have permitting, design, construction and follow-up monitoring expertise on staff and thus may have some internal capacity to implement their own mitigation. Thus, self-mitigation by these large entities can reduce the overall demand for conservation bank credits.

In order to effectively compete with entities that have the ability to self-mitigate, conservation bankers need to be able to provide a very cost-effective product and be able to highlight the severance of liability benefits associated with conservation banks. It is important in these situations for conservation bankers to underscore the 'full delivery' nature of the conservation credit. A conservation credit includes not only the habitat area but also all the permitting, design, monitoring and long-term maintenance cost, along with the legal severance of liability. Often when all these costs, along with the uncertainty factor, are added up and adequately reflected in the price of the mitigation alternative, then the conservation credit price is competitively priced against the cost of self-mitigation or outsourcing to other entities due to economies of scale found in the bank cost structure.

Other conservation bankers: Another major factor affecting the demand for conservation bank credits is the amount of credits available from other

conservation bankers. As with all businesses, competition from other similar businesses can greatly influence the market. Understanding the amount and timing of available substitute goods in the marketplace is essential in determining whether establishment of a bank is a wise business decision. The location and preferences of the regulators to the other bank locations can also determine if your bank will have a competitive advantage over other conservation banks. For example, regulators or permit requirements often favour mitigation alternatives that are closer geographically to the point of impact over mitigation that is further away. Therefore, if your bank location is closer to areas of future impacts then it may enjoy a competitive advantage over other forms of mitigation.

In addition, the nature of the competition can also play a role in determining how much mitigation business a banker may receive. For example, private bankers sometimes are at a competitive disadvantage to government-run mitigation banks or programmes, and even some private non-profit mitigation alternatives. Agencies' regulators often have a great deal of discretion over how mitigation regulations are satisfied, and if a sister government agency has a mitigation alternative or a popular non-profit group has a mitigation alternative, regulators are sometimes favourably disposed to choose these alternatives over private for-profit conservation banks. Private 'for-profit' bankers often suffer from the age-old perception that people or groups should not benefit from doing the public good (e.g. health care, education, etc.). Unfortunately, this perception has often had an unintended consequence. One of the original goals of conservation and mitigation banking was to provide value to habitat or species landscapes, so that private landowners would have economic incentives to protect rather than diminish those important resources. When the economic demand or the value-added pricing benefits for these ecological lands are diminished, the financial incentive to protect the threatened or endangered species is reduced. Without the financial incentive to protect species habitat some of these lands will be lost to development or more intensive agricultural or mineral extraction activities.

In-lieu fees/regional habitat conservation plans (HCPs): Another alternative for endangered species mitigation sometimes available to the regulated community is in-lieu fees. An 'in-lieu fee' is a payment to a pre-established fund or programme, in lieu of performing the mitigation yourself, and the programme then takes on the responsibility to implement the mitigation. Most in-lieu programmes do not acquire or even identify the mitigation land until enough funds are collected to implement a project, which is often many years after the actual impacts occurred. This type of in-lieu fee mitigation alternatives for endangered species, which are relatively common in wetland mitigation, often occurs when a regional HCP or programme is available. Regional HCPs are often administered by a local government entity or non-profit organization. While these programmes are seen as a proactive method to direct where development and its resulting mitigation should go in a comprehensive manner, they often conflict with and force conservation banks out of the market. Thus, in areas with a regional HCP the conservation banker has to determine whether it can sell its product or be able to compete in a regulated market.

Threats to conservation banking

Like any highly regulated market, there are a number of threats that can affect the success of conservation banking. The majority of these threats come from the same rules, regulations and government agencies that created the market in the first place.

For example, as discussed, regional HCPs and in-lieu fee programmes run by public agencies or environmental non-profit organizations can supplant the need for private conservation banks. Government run or supported regional HCPs often enjoy a competitive advantage over conservation banks because they can: (1) determine the costs for the product and price it at a level that maximizes revenues, rather than being based on the current cost of mitigation; (2) often have discretion over how and where the mitigation will be satisfied, thus controlling costs; and (3) have regulatory discretion over the permitting process and can direct mitigation to in-house programmes. Besides having a number of serious ecological implications, this scenario often removes any potential of private conservation banking opportunities, undermining the incentive to protect private lands.

Similar in-lieu fee programmes found in the wetland mitigation arena have come under criticism by various reports (US General Accounting Office (USGAO), 2001; Environmental Law Institute (ELI), 2002), and there are proposed rules to disallow the use of in-lieu programmes that have lower standards than other forms of mitigation (USGAO, 2001; ELI, 2002; US Army Corps of Engineers, 2005). However, no such similar study or analysis has been done of species-related in-lieu fee or regional HCP programmes. The majority of these programmes are implemented by governmental or environmental organizations which are often allowed to have lower standards than individual mitigation requirements and/or delay the implementation of the required mitigation. To level the playing field, these inequities will need to be addressed by the appropriate regulatory agencies and environmental groups.

Due to the escalating costs of lands in rapidly growing areas, some local government entities are opting to go with a system that requires the private sector to provide the land and any restoration and monitoring that go along with the mitigation to reduce the liability of implementing these programmes. For example, in northern California the highly successful Natomas HCP, after many years of collecting a straight fee for the mitigation, now requires that entities provide the land along with a fee to manage the properties. This ensures that the HCP can provide the required services even in the face of escalating base land costs. These types of programmes do allow the conservation banking model to work; however, it can result in a dampening effect on prices and thus reduce incentives for entities to deploy capital for conservation banks. The reduction in price is due to the focus on the lowest-cost bid and competition among the competing entities, which can be beneficial in terms of pricing, but can also lead to lower ecological values since the value is on price and not on best habitat or quality of product. As astronaut Alan Shepard was quoted as saying regarding space flight 'It's a very sobering feeling to be up in space and realize that one's safety factor was determined by the lowest bidder on a government contract' (www.brainyquote.com/quotes/authors/a/alan_shepard.html).

Another growing phenomenon is the use of local governmental restrictions to reduce or limit the sale of conservation credits. Certain local governmental jurisdictions are concerned that more urbanized areas will use rural lands to meet their mitigation needs, thus limiting the ability of these rural areas to grow or mitigate their own development decisions at a future date. While most conservation banks are situated in areas zoned for open space or other compatible land uses (e.g. recreation, agriculture, etc.), local governments are expanding their typical use of land use controls to limit sales of credits to areas of their jurisdiction. Recent court challenges (*Calmat Co. vs The City of Colton*) are underway to address this issue, but this again has the ability to threaten the future market for conservation bank credits.

Finally, delisting of a species due to recovery or loss of the species will also remove the need and market for conservation banks. While it is everyone's desire to see species recovered to the point of delisting, it will result in the loss of demand for mitigation associated with the species and must be considered in the evaluation of whether or not to establish a new conservation bank for a species that may be delisted in the near future.

Pricing and marketing credits

Understanding the pricing and marketing of conservation bank credits is an important factor in developing a sustainable banking business. Similar to other businesses, understanding who the clients are and the service or product you can provide them is paramount to success. Unfortunately, given the 'green nature' of this industry, many individuals and groups neglect to focus on the underlying business fundamentals associated with the conservation credits and sometimes run the risk of failure.

Pricing the conservation credit

Given that consumers of mitigation have many choices in fulfilling their mitigation requirements, prices for banking credits are typically set at a market rate based on costs of production and available alternatives. There is a commonly held misconception that approved conservation bankers can charge exorbitant prices for their credits, but as described earlier there are a number of alternatives available to keep costs down. Due to the additional benefits that an approved conservation bank can offer, such as reduced permitting costs, timely implementation and severance of liability, banks can often charge a fee that may be slightly higher than the alternative costs, but typically only by a small margin.

Bankers typically set their rates at levels that are similar to or slightly above the costs of individuals to implement the projects themselves or hire contractors to perform the work. However, price elasticity also plays a factor in mitigation demand. Given that the mitigation market is subject to the interpretation and implementation of laws, if prices for mitigation become too costly to the mitigation community, potential credit buyers may undertake efforts to revise the laws or develop lower cost alternatives (e.g. in-lieu fees, regional HCPs). Bankers must take into account whether or not the eventual cost will be too pricey for the market to bear, resulting in the deferral of projects or efforts to revise the implementation of the regulations.

Marketing the product

The market of habitat values or 'credits' differs from general sales and marketing of most consumer products. This is a service industry requiring a high level of expertise and knowledge of the regulatory field and the specific species requirements. In addition, issues of integrity of the product you're selling and the limited nature of the business or organizations that require mitigation dictates the approach to marketing.

Services vs product approach: The regulatory process and requirements are very complicated and not an easy process to get through. Most customers who require mitigation come from fields outside of the environmental field and are not intimately familiar with ecological requirements of species and the requirements associated with species mitigation. Often, they require assistance to determine whether they can buy a mitigation credit or must avoid any impacts. In addition, agency regulators in areas with high development activities have little time or lack the resources to fully assist the permit applicants with all the regulatory process. So while an approved conservation credit is an individual unit or product for sale on the open market, it takes a highly skilled and knowledgeable person to truly market and sell the credit. Even the processing of the sale requires government approval and tracking to ensure mitigation compliance. Therefore, bank sales and marketing individuals trained in environmental regulatory permitting and compliance are essential in being able to assist clients with satisfying their species mitigation needs.

Full delivery product: As described earlier, a conservation credit includes land, legal protections, permitting, design, restoration, monitoring, long-term stewardship and transfer of legal responsibility to a third party, all wrapped up in one unit. Most individuals implementing their own mitigation have to pay for each of these aspects of mitigation separately, often at higher unit cost for each item. However, many consumers of mitigation credits don't know or understand all the costs or benefits that go into a conservation credit and may consider this full delivery product more expensive than the alternative mitigation products which may or may not describe all the future costs associated with mitigation. It is important for bankers to highlight all the products and services that are rolled into a conservation credit to their customer to fully emphasize the benefit of their product.

Product certainty: As described earlier, under the current system, conservation bank credits are not freely transferred among individuals but rather are dictated by the agencies requiring mitigation. This transaction, which requires the buyer and seller to have an agreed upon price and sales contract and the final approval of the governmental agency, is a 'triangular transaction'. While the price and contractual relationship between the buyer and seller is a market transaction, the ability to approve the transaction and ensure that the buyer has legally satisfied their mitigation obligation resides with the governmental agency. Thus, it takes three parties to consummate the sale. It is very important for the conservation banker to keep impeccable files of every transaction and to ensure that the governmental agencies have accurate and up-to-date files to avoid transaction uncertainties.

Approaches to marketing and sales

Since not all individuals require a conservation credit in the course of their daily activities, the conservation banker needs to concentrate marketing efforts on those entities that require mitigation in the public and private sector community.

As described in the section on Customers, the major users of mitigation are private sector home builders, commercial developers and industry and public infrastructure agencies such as road builders, water purveyors and utilities. It is important to target these industries and their associated groups such as consultants and engineering firms, along with land use attorneys and other businesses that assist the core customers in meeting their mitigation needs.

Focused marketing such as trade conferences, specialized mailings and presentations that target these groups is necessary to let them know about the products and services that a conservation bank provides. In addition, knowledgeable and experienced sales staff that understand the permitting process can help meet the client's requirements.

Unfortunately, there are many bankers who enter the market from other industries and attempt to inappropriately apply sales techniques. For example, the traditional 'glad handing' and networking approach has little or no value unless the person can actually help the client with their mitigation problems and understands how to get through the process. Clients for mitigation are extremely busy and their time is valuable, thus talking heads do nothing but waste their time and it reflects poorly on the product.

Traditional marketing tools like billboards or telemarketing that attempt to reach a broad audience are highly inefficient and can even cheapen the perception of the product with the clients and the governmental agencies that are often peripherally involved in where credit sales may go. Marketing and sales that focus on product integrity and servicing the client mitigation needs will ensure long-term success in the industry.

Future opportunities

While the overall market for conservation banks is still very small and limited to only a few areas of the US, there may be opportunities to grow the market for this green product.

Conservation market for credits: While the economic axiom Say's Law states that supply creates demand, it is widely accepted that conservation credits are controlled by the regulatory enforcement of mitigation. What if, though, conservation credits could be marketed to those groups or individuals who simply value conservation?

Currently, there are no restrictions on selling conservation credits to those who want to simply buy credits for the sake of protecting or restoring the environment. Given that most banking credits are full-service environmental units, in the sense that they provide not only the protected land, but monitoring and long-term land stewardship built into the final good, buying credits may be an effective strategy for achieving land conservation goals. Most non-profits or government agencies

currently acquire only a portion of the environmental services offered in a credit. Most land trusts or governmental organizations will acquire the land, but then turn the land over to someone else to manage, or will restore existing public lands. Fewer will actually create an endowment fund for the long-term stewardship of the lands, and this activity is usually subject to public budgets and financial fluctuations that impact governmental financing. However, a mitigation or conservation credit typically contains all of these features in one. Once the benefits of these full-service credits are more fully understood by decision makers and the public, opportunities to market credits on the open market may become a more viable option. As described earlier, the costs associated with most conservation credits reflect the actual market costs of providing for full-service ecological protection. Potentially, expanding existing conservation credits to governmental grant programmes may open the door to this market.

Growing need for species credits: While no one hopes to see greater loss of habitat and more species listed, the increasing loss of species habitat seems inevitable as the population continues to expand. Population in the US just passed the 300 million mark and is expected to reach 400 million by 2043; in states and regions where growth is likely to occur, the use of high quality conservation banks will probably increase (US Department of Commerce, 2006).

International market: It is surprising that, with all the supposed attention paid to the environment by developed and newly developing countries, conservation banks are not found in other areas. In some older developed regions there may not be many species left to impact, such as is the case in parts of the north-eastern US, or growth controls have limited impacts to natural resources. But in other natural resource rich countries, such as Australia, Canada, Chile, China, Costa Rica, Japan, Mexico, New Zealand, South Africa and Uruguay, the opportunities to enact laws to protect species could lead to opportunities for conservation banking. See Chapter 13 and Chapter 14 for more on international developments.

Finances associated with conservation banking

While many individuals, businesses and governments have tried to estimate both the general cost structure and profits associated with mitigation and conservation banking, there is no 'one size fits all' approach. All projects have different materials costs and service costs (e.g. permitting, legal and financial assurances) associated with the conservation bank. Thus, it is often more appropriate to use a return on investment model, similar to one a developer would use on a project, to determine the viability of a project.

As every economist or developer recognizes, a simple calculation of a per cent return over the cost of production is not useful in the case of a future return on investments where risk is involved. For example, a simple mathematical calculation shows that if a banker invested \$5 million dollars in a conservation bank and received \$10 million dollars in net pre-tax profit this would result in a 100 per cent return on investment. However, if it took a banker five years to sell those credits the annual return on investment would only be 20 per cent, and if it took a total of ten years

the return on investment would be 10 per cent. If you assume that the cost of capital (the rate a bank charges for the use of their money) for the conservation banker is 10 per cent, then a bank that takes ten years to sell provides no return over the cost of money. When you consider all the market risks of selling credits over a ten-year period, the banker would have been better off investing his or her money in a balanced investment portfolio.

While this example provides an important constraint to the prospective conservation banker, it also is an example to the government regulators. The most standard example bankers see today is when regulators attempt to reduce the amount of credits on a yearly basis or want to restrict the size of sales at a conservation bank to only small impacts (e.g. less than an acre of species impact). These types of regulations, while possibly having good biological rationale if applied to all forms of mitigation, can and do often result in much lower returns and the creation of fewer banks.

The few general characterizations that can be made concerning the potential costs and profits of mitigation banks suggest that unequal requirements by government agencies for different types of mitigation have substantial impacts on conservation bankers. Given the cost of money, the faster a banker can sell their credits the more profitable they are going to be.

Foundations of a successful conservation banking business

There is no one characteristic or feature that makes one conservation bank or banker successful, rather it is a number of different and diverse skill sets that set certain bankers apart from others. Thus, the foundations for developing a successful conservation banking business are:

- capital;
- multi-disciplinary staff;
- internal expertise;
- local knowledge;
- honesty and integrity.

Capital

Conservation banking is relatively capital intensive, often requiring the purchase of property in rapidly growing areas with rising land costs, substantial costs for permitting and design and construction (if necessary) and a large endowment account for future land management. In addition, given that most of the credits associated with conservation banks are sold over a number of years rather than in one or two years, the carrying costs of money can be substantial. The term 'patient money' is often used to describe the type of investment dollars necessary to support the establishment of a conservation or mitigation bank. Rates of return often associated with venture capital or hedge funds are difficult to support given the localized markets associated with species or wetlands banks and the level of competition.

Multi-disciplinary staff

The permitting of a conservation bank takes a number of different areas of specialized expertise. Fields as diverse as biology, ecology, real estate, legal, geographic information systems, regulatory planning, government process, marketing and sales, and financial accounting are often necessary in the establishment of a conservation bank. Understanding all the different factors or acquiring the necessary expertise is fundamental to banking.

Internal expertise

While the fundamental aspects of how to permit a conservation bank and the bank agreements are relatively standardized in the parts of the country that have conservation banks, there is still a great deal of variation in the length of time it takes to permit banks and the type of requirements that go into individual banks. The length of time it takes to permit a bank, often from six months to a couple of years (some conservation banks have taken up to four years to permit), and the differing amounts of expertise can result in substantial costs to get the product on line. Thus, if you have to outsource a substantial portion of the work it can cost a lot of money and dilute any potential profits or cause you to raise your costs. In some instances, the increased standards and requirements price out the smaller landowner banks that cannot afford the upfront costs associated with bank development.

Local knowledge

Like politics, all banks are local. Conservation bank credits are sold for a particular species that in most instances is found in a highly localized area. Service areas are typically restricted to one or two counties. In some instances, the service area or area in which credits can be sold is limited to a city or portion of a county. Knowledge and involvement with the local regulatory community, decision makers and customer base is vital in establishing and marketing your credits. Bankers or mitigation providers from outside the area are at a competitive disadvantage when it comes to contracting local groups to provide business services.

Honesty and integrity

Finally, the one characteristic that sets bankers apart and determines who will be around over the long term versus those who are 'here today, gone tomorrow' is honesty and integrity. A banker may make a large one-time sale or even completely sell out a bank, but if they do not provide honest service to the client, the client will choose to take their future business elsewhere. In addition, if the credits sold do not meet the regulatory expectations of the agencies or the product is oversold, then the agencies will be less likely to permit a future bank.

In the end, the key to a good project is similar to most other business ventures and requires the following components to be successful:

- Capital: land or investment monies.
- Expertise: ability to permit the project.
- Opportunity: client plus regulatory environment plus good landscape.

Capital + Expertise + Opportunity = Success

Summary

Banking is truly the intersection between business and biology. Economic factors and business factors have to be weighed as carefully as the ecological and biological factors before establishing a conservation bank. The actions of the regulatory and government agencies can have major impacts on the business of banking and need to be monitored closely. In addition, governmental bodies need to pay close attention to the policies and regulations on mitigation and should understand the economic impacts of their requirements on all forms of mitigation if they want to maintain conservation banking as an ecological alternative.

As the population of the US continues to grow, so will impacts to endangered species and their habitats. Therefore, the need for high-quality and cost-effective species mitigation such as conservation banks will continue to expand. The expected growth in the use and demand for conservation banks will lead to many more land-owners and groups, such as non-profits, land trusts and private commercial concerns, providing these services. However, it is important for all parties engaged in the establishment and management of conservation banks to recognize that it is a complicated business that requires both a solid foundation in biology as well as refined business skills to succeed.

References

- Calmat Co. vs The City of Colton*, Superior Court, San Bernadino County, Case Number SCVSS135476
- Denisoff, C. (2005) 'Banking and transportation projects: Merging ecological protection and economic growth', *National Wetlands Newsletter*, September–October
- Environmental Law Institute (2002) *Banks and Fees: The Status of Off-Site Wetland Mitigation in the United States*, ELI, Washington DC
- Fox, J. and Nino-Murcia, A. (2005) 'Status of species conservation banking in the United States', *Conservation Biology*, Society for Conservation Biology, pp996–1007
- US Army Corps of Engineers, 'Compensatory mitigation', Report (unpublished) prepared in 2005 for the Directorate of Civil Works
- USC (2001) *Transport Equity Act for the 21st Century*, 23 USCA, Title 133, Thomson West, Eagan, MN
- US Department of Commerce, Bureau of Economic Analysis (2006) 'Gross state product data table', *Regional Economic Accounts*, October

- US Fish and Wildlife Service (2007) *Consultation with Federal Agencies: Section 7 of the Endangered Species Act*, www.fws.us.gov/endangered/consultations/s7hndbk.htm
- US General Accounting Office (2001) *Wetlands Protection: Assessments Needed to Determine Effectiveness of In-Lieu Fee Mitigation*, GAO-01-325