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Introduction

Mitigation has become a resource industry in its own right and is marketed in Alaska through various trust land organizations and other entities. Trust land has the capacity to support both resource development and mitigation, at times concurrently on the same parcel. The policies and strategies within this plan will help guide the Trust Land Office (TLO) and the trustees as they develop and manage mitigation opportunities on Trust land. A new asset classification has been created, Mitigation Marketing, to take advantage of the dynamic economic opportunities of mitigation marketing in Alaska.

Wetlands mitigation banking holds the greatest potential for the Trust in mitigation marketing as it falls within the most established and lowest risk of mitigation markets. It is also the preferred mitigation by the Corps of Engineers (COE), the regulatory agency, which through a Congressionally-mandated rule adopted jointly with the Environmental Protection Agency (EPA), regulates compensatory mitigation for aquatic resources, including wetlands. On average, 35 percent of the Trust fee estate is considered wetlands. The value of wetlands when appraised as standard real estate is very low in comparison to mitigation value. Contributing a small and select portion of the Trust's wetlands into a mitigation bank can monetize low-value wetlands into higher value properties that could also support revenue generating Trust resource development projects.

The Clean Water Act (CWA), as implemented by Executive Orders and interpreted by the Supreme Court, requires any development project in the U.S. that creates unavoidable impacts to wetlands be offset or "mitigated." Planning for and approving this mitigation occurs during the project's permitting process. This essentially requires the project developer to replace the function of the wetlands lost from the development's proposed impacts. Studies have found that using bank credits to mitigate impacts significantly reduces the time and expense of permitting a project (Birnie, 2013). This efficiency increases the opportunity for the project to begin operations or production sooner and increases cash flow earlier. In so doing, Trust mitigation bank opportunities not only support generation of Trust revenue from resource industries (mining, energy, land, real estate and forestry) but also create a new revenue source by selling bank credits to project developers on and off Trust land. The increased

production time directly impacts the bottom line of a resource development project and is a direct result of having the mitigation already in place during the permitting process for a resource project.

Mitigation Markets

In 1989, President George H.W. Bush established the national policy of "no net loss of wetlands." This set a precedent for replacing a newly impacted wetland with a wetland of the same size with similar functions and values. In 2008, the EPA and COE instituted a new mitigation rule (i.e. 2008 Mitigation Rule); this national policy of no-net loss became a law that relied heavily on a market-based approach to mitigation. Under the 2008 Mitigation Rule, a project developer has three options to satisfy its unavoidable wetland impact obligations, which are listed in descending order of regulatory preference:

- Purchase wetland credits from a mitigation bank created by a third party's successful restoration or preservation and protection of wetlands. This is the preferred regulatory option because mitigation banks perform mitigation prior to development impacts.
- 2. Purchase credits from an in-lieu fee program that can only be sponsored by certain non-profit entities or the government. The in-lieu fee entity promises to restore or preserve wetlands within a certain time frame determined by the COE.
- 3. Perform an offsetting mitigation project themselves.

An important concept is the synergistic relationship between a mitigation bank and resource development. There is no market demand for mitigation banking without development impacts; development impacts do not occur without mitigation (within the same watershed and with equivalent habitat). The Trust is in a unique position because it owns large surface acreage most often in the existing watershed of Trust projects. This inventory of comparable wetlands and the foreknowledge of future projects provide the Trust a competitive advantage with the formation of a mitigation bank.

There are other types of mitigation marketing in addition to wetlands, including conservation banks based on the Endangered or Threatened Species Act, and credit exchanges for carbon, water quality, and

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biodiversity. These other mitigation markets are still in their formative stages; the TLO will monitor emerging mitigation markets for future economic potential.

Valuation

The current highest and best use of many wetland parcels is mitigation banking. Studies of federal wetland permitting across the U.S. demonstrate that when mitigation bank credits are used to offset impacts, permitting time is cut in half.¹ This time and cost savings is the direct result of having the mitigation already in place prior to the COE approval process.

Mitigation banking also increases the appraised value of the lands within the bank because they are no longer appraised as low-value, non-developable wetlands under the national appraisal standards, Uniform Standards of Professional Appraisal Practice (USPAP).

Undeveloped wetlands are typically appraised by the sales comparison approach under USPAP. Few wetlands are sold for higher than appraised value unless they are used to form a mitigation bank. A bank valuation is determined by what financial market participants are willing to pay to acquire the business based on investment and the intrinsic value of the anticipated understanding of the bank's economic potential.

Pricing Structure

The COE does not determine bank credit pricing; the marketplace determines the credit price based on supply and demand. However, it is difficult to predict credit pricing and bank profitability because of the competitive nature of the market. Typically, only the transaction participants know credit values unless it is disclosed in the public record.

The location of a mitigation bank is a key component in determining the credit value. High-density urban properties carry the highest credit price value because the raw land value is also higher. The average price of non-tidal credits nationwide is \$74,535.² In Alaska, the

cost per credit for remote wetlands was \$5,500³ on the low end in 2013, and the reported highest cost was \$140,000 per credit in the Municipality of Anchorage. Generally, 1 acre of wetland within a bank generates one bank credit. The COE, in turn, determines how many bank credits 1 acre of wetland impact will require as mitigation; historically, this ratio can range from 1.5 per one acre of wetland impact to as much as three credits per one acre of wetland impact. Thus, for remote wetlands in Alaska, the price cited above may need a multiple of three to offset a single acre of impact, increasing the cost to \$16,500 per acre of impact.

Mitigation Marketing Strategies

The strategy of the TLO in developing a mitigation marketing management plan is to form banks that support and facilitate development projects on Trust land. A mitigation bank is considered a method of resource development. Revenue generated from a wetland mitigation bank can be significant. Consider that in 2008 the total payments by developers in the U.S. for wetland mitigation were \$1.3 - \$2.2 billion.⁴ While credit sales from a bank provide direct Trust revenue, secondary Trust revenue should also occur as the bank facilitates Trust resource projects from streamlined and cost effective permitting.

The TLO evaluated a variety of options for participation in the mitigation bank process, including equity partnerships and Trust ownership of a bank. These options are described below. The mitigation marketing management plan is an operational guideline. It does not advocate or specify a preference for a Trust-owned bank versus a partnership. The TLO will consider and evaluate opportunities for mitigation marketing on a case-by-case basis before a project is brought to the board of trustees.

A Trust Bank

Trust bank ownership is one option for mitigation banking. The advantage of a Trust-owned bank is that the entire economic benefit would be disbursed to the Trust. The disadvantage is that creating a Trust bank would require not only sizeable capital outlay for expenses related to the scientific analysis, legal work,

¹ Under 33 U.S.C. §1251 et seq. (1972), the Clean Water Act establishes the structure for regulations on discharges of pollutants into the waters of the U.S. and quality standards for surface waters

² Birnie, Kathryn. State of the Market: National Market Analysis and Overview. National Mitigation and Conservation Banking Conference, 2013, Denver, CO.

³ Ecosystem Marketplace

⁴ The Conservation Fund

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permitting, and restoration/preservation actions, but also operational expertise and expenses for running the day-to-day activities of the bank.

The COE also requires that mitigation must function over the long term and that the bank has legal protections in place over the bank's wetlands; typically, a conservation easement is the legal document used. The COE also requires the bank owner to maintain a long-term stewardship account to finance the long-term management of the bank wetlands. The account must identify the range of duties, activities, and enforcement of the easement conditions. Long-term stewardship management is already performed by TLO; under the bank scenario, specific monies may need to be secured in a separate account to meet stewardship obligations.

Partnerships

Partnerships may be employed to develop a wetland mitigation bank. The Trust's partner would assume the responsibility of developing and operating the bank. The advantage to the Trust is that a third party would take on much of the upfront capital requirements and associated risk. Working with an experienced partner would also shorten the time needed for COE approval. The downside is that a portion of the economic benefit will go to the partner; however, this may be offset by the comparatively greater economic benefit that an experienced partner may generate for the bank.

Risks

The TLO has well defined processes in place through statutes and regulations for the management of non-cash assets. This document sets forth portfolio management strategies to enable the TLO to implement the goals set forth by the board of trustees to manage the non-cash assets of the Trust. These management strategies include:

- creating economic diversity;
- · ensuring integrity of investments;
- · leveraging investments;
- managing risk by working with partners; and
- reporting financial outcomes to the Trust.

Mitigation Marketing will follow the investment guidelines adopted by the board of trustees. Each potential mitigation transaction under Mitigation Marketing will be evaluated and follow the long-term asset management strategy principles under 11 AAC 99.090(c). The TLO will also follow the administrative process for consultation with the board of trustees prior to public notice.

Important risk management factors to consider for the Trust relative to the wetland mitigation market are discussed below.

Site Selection

Site selection is a critical component for the success of a bank. The bank site must be within the same watershed that the impacts from the development project occur (this is called the bank's service area). If the Trust bank service area is located outside of the development impacts, the COE would look at other mitigation providers to fulfill the permittee's mitigation obligation inside the service area and the Trust would lose that potential revenue. The risk of selecting the wrong bank site is reduced when the creation of a bank for the Trust occurs within the mid- to end-stages of the Trust's project permitting process.

Another potential risk in site selection is that the site may yield a new resource discovery or a technology may develop that could create greater economic value than mitigation banking. The bank structure is flexible enough to allow deliberative changes to the bank site. In extreme cases, the COE allows subsurface use of land encumbered with a conservation easement for development. However, to the extent the proposed development may degrade surface wetlands, the bank would likely be required to find a similar parcel to offset the mitigation. This concept is known as "mitigating the mitigation."

Capital Investment

Formation of a Trust bank without a partner will require large capital investment for expenses related to the science, field work, mapping, legal work, permitting, restoration requirements, and operational infrastructure for the bank. A bank is required to complete its mitigation prior to receiving credits to sell. "This large initial investment, combined with delayed cash flows, exposes bank entrepreneurs to a longer payback period..." (Hook and Shadle, 2013). The risk could be abated by:

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- Working closely with the project developer on Trust lands and phasing the creation of the bank development process. While this would reduce capital costs and their associated risk, certain upfront capital costs (namely, funding bank permitting and development) would still be a risk for the Trust.
- Working with a partner who will fund the large capital outlay under negotiated terms.

Demand

Wetland mitigation banks have a synergetic relationship between development impacts and a market for the mitigation credits. A bank's inventory must not outweigh the demand of the market for a specific type of wetland or the bank will not generate optimal returns. For very large-scale projects, a bank may be developed to specifically focus on that project's credit needs; this is often referred to as a "single-user bank." While this kind of high-volume, well identified demand can be attractive, there is still risk from this approach if the single-user project does not proceed. The risk could be lessened by targeting an area with multiple project demands in the same watershed to increase the market for credit sales.

Federal policies affect demand by increasing or decreasing regulations that mandate the mitigation obligation. Rule changes could alter the market environment such as the availability of credits, the bank's service area, and unequal application of the 2008 Mitigation Rule. While the regulatory environment is dynamic and the processes are continually refined through adjustments to policy and agency procedures, the trend is that federal regulators are more consistently enforcing the requirements of the 2008 Mitigation Rule for project developers. A Trust bank will effectively assist the project developer to meet the federal no-net loss permitting obligations.

Summary of Mitigation Marketing

Federal and state regulatory permitting law mandates that project developments that impact wetlands must mitigate unavoidable impacts. Project developers on Trust land are required to comply with those regulations and the developers must pay the mitigation costs to satisfy the regulatory obligation. Developers who pay for mitigation credits generally

obtain their permits in a shorter timeframe than those developers who try to restore the site on their own because the mitigation has been performed prior to impacts. Mitigation requirements have increased since the no-net loss policy of President George H.W. Bush, regardless of Executive Branch control.

Although 35 percent of the Trust's portfolio is considered wetlands, only a small segment of those parcels will be selected for mitigation marketing. The relationship between watershed location and development impacts is a key component of the success of mitigation marketing.

The highest and best use for a small group of Trust wetlands is for use in mitigation marketing. Entry into mitigation marketing will be treated as its own asset classification. The advantage of creating this new asset classification is to provide performance indicators that will measure the results of this new resource and generate additional revenues from its development. Mitigation marketing will leverage revenues received from mitigation obligations plus revenues from the traditional resource developments in land, mining, energy, timber, and real estate sectors that its mitigation facilitates. The Trust will now not only be able to market the resource, but also provide a solution for efficiency of federal permitting obligations.

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Goals and Objectives

Goal: Evaluate the potential for one mitigation marketing project to promote a Trust resource development to move forward through the federal permitting process.

Objective 1: Identify future projects which may have mitigation requirements in the coming decade.

Objective 2: Select potential parcel(s) with equivalent wetlands that may have potential to offset those resource development project impacts through known databases.

Objective 3: Evaluate and assess pro forma analysis to determine suitability of bank ownership structure through a partnership or sole-ownership by the Trust.

2600 Cordova, Suite 100 Anchorage, Alaska 99503 907-269-8658 http://mhtrustland.org