Program Options for Improving Compensatory Mitigation under NWP 21

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Abstract

The Clean Water Act Section 404 requires that permits be obtained by parties discharging dredge or fill materials into waterways. Under general Nationwide Permit (NWP) 21, the Army Corps of Engineers authorizes issuance of such permits but requires permittees to perform "compensatory mitigation" to offset ecological services lost due to such stream fills or other adverse stream impacts. Currently, permittees meet compensatory mitigation requirements by either constructing on-site projects or by making payments to an in lieu fee program that constructs off-site projects. This project aims to identify alternative ways in which the mining industry can improve the quality of compensatory mitigation through the formation of cooperative, joint industry ventures (generally called mitigation associations). Several mitigation association designs are developed with the goal to improve cost effectiveness and ecological success of compensatory mitigation for stream impacts.

Introduction

Section 404 of the Clean Water Act requires that permits be obtained by parties discharging dredge or fill materials into waterways. Under 404, the U.S. Army Corps of Engineers (Corps) administers Nationwide Permit 21 (NWP21) that governs the discharge of fill material into streams from surface mining activities. Permittees are required to perform "compensatory mitigation" to offset unavoidable impacts of such fill activities. Compensatory mitigation occurs via activities designed to restore ecological services in stream channels either on the site of the disturbance itself or at an off-site location. The objective of 404 programs is to ensure that improvements in aquatic resources from compensatory mitigation offset the reduction in aquatic resources from the impacted areas.

Regulatory officials have an interest in ensuring successful compensatory mitigation will be sufficient to offset fill impacts. Mining companies, while meeting their regulatory obligations to provide ecologically meaningful and successful mitigation, have a financial interest in assuring that compensatory mitigation requirements are met at the lowest possible cost. The question is how these objectives can both be accomplished.

Generally, compensatory mitigation can be provided in three ways: permittee provided on-site mitigation, in lieu fee programs, and commercial mitigation banks. In most cases, the permittee with the initial regulatory responsibility for compensatory mitigation will construct a stream restoration/enhancement project on or near the permitted mine site. In many areas (including Virginia) mining companies also have an option to meet their compensatory mitigation requirements through in lieu fee programs (U.S. Army Corps of Engineers 2003). In

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an in lieu fee program, the permittee makes a payment to an approved mitigation "sponsor" in lieu of implementing their own mitigation. The sponsor, typically a government agency or a nonprofit organization, takes on the permittee's legal and financial mitigation responsibility and then uses the collected fees to identify, construct, and maintain compensatory mitigation projects off-site from the permitted impacts (but generally within the same watershed or ecoregion). Mining companies could also meet their regulatory requirements by purchasing "credits" from private commercial mitigation banks. Commercial mitigation banks construct off-site stream restoration or enhancement projects for the purpose of producing mitigation credits for sale to permittees. Mitigation credits are a measure of the environmental improvement (e.g. linear feet) of a mitigation project and are certified by regulatory agencies. However, to date private mitigation banks have rarely been used approach to meeting stream mitigation requirements.

A fourth option, what could be called a "mitigation association", might offer opportunities to lower industry costs and improve mitigation quality (Stephenson and Shabman 2004). A mitigation association is an independent organization created by a group of two or more mining companies for the sole purpose of assisting members meet their joint compensatory mitigation obligations. In concept, a private mitigation association operates much like a farm cooperative – using coordination and consolidation to lower input costs to its members. A board of directors made up of its members would establish broad policies of the Association, but use specially trained staff to conduct day-to-day operations. As an independent organization, the Association would also maintain an independent budget from its members. Funding for the Association's basic organization might be generated through membership dues or fees to perform certain compensatory mitigation activities.

As an organizational mechanism, a mining association might have the potential to improve compensatory mitigation in a number of ways. First, a mining association could be a way to consolidate compensatory mitigation planning expertise. By considering the mitigation obligations of a group of mining companies rather than individual companies, a mitigation association might be in a better position to conduct large-scale watershed planning activities. Joint mitigation planning activities might reduce planning costs on a per project basis and improve the ecological quality of mitigation projects. Second, a mitigation association might develop procedures that would allow members to jointly construct or share compensatory mitigation credits. By consolidating impacts of individual mining projects, an association might be able to plan and/or construct larger scale stream restoration/enhancement projects. The mitigation credits from a few large scale restoration projects can then be divided and shared among individual members. Per unit costs (cost per linear feet) may generally fall as the size of restoration projects increase (Bonham and Stephenson 2003). Third, through coordinated planning, the mitigation association would be well placed to anticipate the extent and nature of future stream impacts from mining activities. This knowledge offers the opportunity for a mitigation association to conduct more advanced mitigation (mitigation projects constructed *before* impacts occur). Given proper regulatory incentives, advanced mitigation could lower the risk that mitigation projects will fail to produced planned ecological improvements.

The challenge is both to identify organizational forms that are able to capitalize on the most promising opportunities for a mitigation assocation. The objective of this study is to identify potentially realistic and beneficial designs for a mitigation association that provides or

assists mining companies to meet their Section 404 compensatory requirements. Designs for a mitigation association would include details for the type of activities undertaken by a mitigation association and description for how a mitigation association would finance and accomplish these activities.

Procedure for Developing and Evaluating Mitigation Association Alternatives

An iterative, structured interview process was used to identify mitigation association design options. First, a background document was prepared that described how a mitigation associations might be used to improve compensatory mitigation in concept (Stephenson and Shabman 2004(b)). This document was designed to be introductory in nature and to solicit support from relevant stakeholder groups to explore the concept in more detail. The background document was circulated to a number of stakeholder groups including representatives from the mining industry, U.S. Army Corps of Engineers, Environmental Protection Agency, and various community groups. Formal briefings and presentations were specifically conducted for the U.S. Army Corps of Engineers[2], Environmental Protection Agency[3], National Mining Association[4], West Virginia Coal Association[5], and the Virginia Mining Association[6].

From these contacts, the next step was to identify a small group of individuals to work closely with the principle investigators to provide commentary on opportunities and challenges for a mitigation association. Six people from the mining industry and regulatory agencies volunteered to work in this capacity. Free-form telephone interviews were conducted with these individuals during the spring of 2005. During the interviews the individuals were encouraged to speak candidly and honesty about existing compensatory mitigation practice and to the discuss opportunities and barriers of a mitigation association based on their experiences and knowledge.

Based on the insight and feedback provided during this interview process, the principle investigators next produced a written document describing three options for a mitigation association (Stephenson and Shabman 2005). For each option, the activities and organization of mitigation association was described (a summary of each option is provided in the next section). Selection and development of mitigation association options were based on the principle investigators' assessment of the potential of a mitigation association organization design to improve compensatory mitigation (both in reducing costs and improving ecological success). These draft mitigation options do not reflect the views of any individual, company, or regulatory agency, but are the sole opinions of the principle investigators based on collective information provided during the interview process.

The draft mitigation options document will then serve as a basis for engaging a broader set of stakeholder groups in a dialogue about how and whether specific mitigation options can

[2] Conference call January 13th, 2005 with representatives from U.S. Corps of Engineers including Pittsburgh, Huntington, Norfolk, Knoxville, Nashville Districts, Washington (headquarters), and Institute for Water Resources.
[3] Telephone conference call with Palmer Hough, Tim Landers, and Morgan Robertson, April 14, 2005.
[4] September 30th, Las Vegas, Nevada.
[5] February 16th, 2005, Charleston West Virginia.
[6] December 15th, 2004, Norton, Virginia

improve compensatory mitigation (currently in progress). The draft options document will be circulated to other interested mining officials and agency staff (including state and federal regulatory staff). The draft options document will also be circulated community/environmental organizations and others with an expressed interest in improving compensatory mitigation. This larger set of stakeholders will be asked to provide comments and suggestions on the various mitigation options. Unrealistic or unworkable ideas will be eliminated from further consideration, but designs with potential for improving compensatory mitigation will be developed in more detail and for further refinement.

After reviewing and evaluating comments (select personal interviews as well as written comments), the principal investigators will revise the draft options document. Based on a the level of interest in the mitigation association option, the principle investigators will reserve the option to hold a one day meeting with selected stakeholders. The purpose of the meeting would be to explore and debate the merits of specific mitigation association options in more detail and to discuss unresolved issues. The purpose of these stakeholder meetings is for the group to jointly share their various interests/concerns, identify design problems/challenges, and to jointly consider and suggest possible ways to improve specific mitigation association designs. The group will not be asked to select or endorse any particular mitigation association option or plan. Rather, the specific goal of the meeting is to jointly refine the most promising and realistic options for a mitigation association options (if any) and to discuss options for overcoming potential problems and obstacles to the operation of a mitigation association.

Based on this meeting and other any other stakeholder feedback, the principle investigators will issue a final report. The final report will describe the most refined and promising mitigation association options in sufficient detail to provide a basis for the mining industry pursue formation of an association if one is so desired.

Mitigation Association Options

Although the study has not yet complete, the "draft options" document has been prepared and three mitigation association options were identified (Stephenson and Shabman 2005). The three options represent a continuum of potential activities and services a mitigation association may provide to its members. The three mitigation associations are called 1) mitigation planning association; 2) mitigation credit association, and 3) mitigation association bank. These ideas will be discussed with a broader set of stakeholders in the late summer of 2005 and a final report issued in the fall of 2005.

A *mitigation planning association* would provide compensatory mitigation planning services and coordination for its members. Under this option, an association itself would ***not*** construct compensatory mitigation projects and would ***not*** be approved as a mitigation bank under current Corps mitigation banking policy and guidance. Rather than providing compensatory mitigation itself, a mitigation planning association would be responsible for identifying a suite of potential mitigation projects for its members. The overall objective would be to develop a "portfolio" of individual project plans that would be considered acceptable compensatory mitigation by state and federal agencies. The projects identified by the association could serve to place mitigation into an overall watershed approach aimed at improving aquatic functions and achieving socially

determined watershed goals. Regardless of the level of planning done by the association, individual association members would be fully responsible for executing the plan, as a condition of a permit.

A *mitigation credit association* would serve as an industry facilitator to acquire compensatory mitigation credits for its members. A mitigation credit association would build on the planning functions describe above by facilitating a process of implementing compensatory mitigation projects on behalf of its members. In practice, this would mean that the association itself would take an active role in the acquiring or managing compensatory mitigation credits that would meet the compensatory permit requirements of its members. Once compensatory mitigation credits are acquired, the association would the redistribute the credits to its members based on the organizational rules of the association.

As an illustration, a mitigation credit association might use the portfolio of potential mitigation project plans or its general watershed-scale plans to solicit bids from third party commercial mitigation bankers to provide compensatory mitigation credits. The compensatory mitigation credits generated by the commercial credit banker would be certified and approved by regulatory agencies. The association would then purchase these credits for use by its members through competitive bid process that would ensure that mitigation is provided at the lowest possible cost. The association, however, would not assume any regulatory responsibility for constructing and certifying mitigation credits. The regulatory responsibility for ensuring the compensatory mitigation meets regulatory requirements would rest the third-party commercial mitigation bankers.

Another way a mitigation credit association might include facilitating the transfer of "carry-forward" mitigation credits among association members. When individual companies begin constructing specific mitigation projects, it is possible that a compensatory mitigation project does not perfectly match the fill impacts. In some instances the compensatory mitigation site may be sufficiently large as to produce surplus mitigation (compensatory mitigation in excess of permitted impacts). Such surplus mitigation might be called "carry-forward". A mitigation association could explore with regulatory agencies whether, and how, these "carry-forward" mitigation credits can be shared with members of the association.

A *mitigation association bank* would serve as fully operational mitigation bank, with responsibility of both planning ***and*** implementing compensatory mitigation projects on behalf of its members. Unlike a planning or credit association, a mitigation association bank (or some other similar organizational form, such as a mitigation foundation) would be fully responsible for executing the compensatory mitigation plans for its members. As such, the association would construct compensatory mitigation projects and assume the regulatory responsibility associated with successfully constructing these projects. The mitigation association would also be financially responsible completing all mitigation including posting of any financial assurances (ex. Performance bonds). Once the compensatory mitigation projects are constructed, the resulting mitigation credits are registered under the Association's account. The Association could then distribute the credits to its members that have compensatory mitigation requirements based on the rules and procedures of the Association. A mitigation association bank would

probably need to be approved as a commercial mitigation bank under the Corps mitigation banking guidelines to serve in this capacity.

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