

Wetlands in Washington State

Volume 2: Guidance for Protecting and Managing Wetlands

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Suggested code language for mitigation ratios is provided in Appendix 8-B. Guidance on compensatory mitigation ratios for use with the western and eastern Washington wetland rating systems is provided in Appendices 8-C and 8-D, respectively. Appendix 8-F provides the rationale behind these mitigation ratios.

Timing of Mitigation

Generally, mitigation actions are conducted concurrently with or soon after the wetland impact occurs. Standard ratios are typically established based on this assumption. If mitigation is conducted in advance of the impacts, then the risk and temporal loss are reduced and the ratio should be reduced commensurately. If the mitigation is conducted well after the impact, the ratio should be increased.

8.3.7.2 Special Types of Compensatory Mitigation

In addition to addressing the more common mitigation actions (e.g., creation, restoration, and enhancement), local jurisdictions should consider including language in their regulations specifying the circumstances under which special types of compensatory mitigation may be used, such as preservation, mitigation banks, in-lieu fee programs, and programmatic mitigation areas. These types of programs are discussed below.

Preservation

The preservation of existing wetlands as a means of compensating for wetland impacts is highly controversial because it always results in a net loss of wetland area and is perceived as trading one wetland for another one that is already protected. The reality is that some wetland types are not adequately protected under existing laws and can benefit from being placed in public ownership or protected by a conservation easement.

For example, many forested wetlands can be logged under current state laws, and wetlands with significant habitat value are very difficult to protect without large buffers and corridors to connect them to other habitats. Preservation of large tracts of wetlands and uplands can provide benefits that are impossible to achieve using typical regulatory approaches. One way to think about the issue of “net loss” with respect to preservation is that some wetlands are going to experience unmitigated impacts unless they are preserved. In that sense, preservation provides a “net gain” over what would otherwise occur.

Preservation has the following basic advantages as a compensatory mitigation tool:

- Larger mitigation areas can be set aside due to the higher mitigation ratios required for preservation
- Preservation can ensure protection for high-quality, highly functioning aquatic systems that are critical for the health of the watershed and aquatic resources that may otherwise be adversely affected

- Preservation of an existing system removes the uncertainty of success that is inherent in a restoration, creation, or enhancement project

Generally, the use of preservation to compensate for impacts is appropriate only in very limited circumstances. The preservation of a *high-quality* wetland in the same watershed or basin where a wetland loss has occurred, however, is often an acceptable form of compensation when done in combination with other forms of compensation such as re-establishment or creation. See Appendix 8-B for features indicative of high-quality sites.

Note that the use of preservation of wetlands as compensatory mitigation should not allow applicants to circumvent the standard mitigation sequence of avoiding and minimizing impacts first, followed by compensating for unavoidable losses. Additionally, preservation projects should be subject to the same requirements as other types of wetland mitigation (e.g., monitoring and long-term protection). Preservation of wetlands generally requires significantly higher ratios to offset impacts than wetland restoration or creation (see Appendix 8-C and D).

Generally, the preservation of at-risk, high-quality wetlands and habitat may be considered an acceptable part of a mitigation plan when the following criteria are met:

1. Preservation is used as a form of compensation only after the standard sequencing of mitigation (avoid, minimize, and then compensate)
2. Restoration (re-establishment and rehabilitation), creation, and enhancement opportunities have also been considered, and preservation is proposed by the applicant and approved by the permitting agencies as the best option for compensation
3. The preservation site is determined to be under imminent threat; that is, the site has the potential to experience a high rate of undesirable ecological change due to on-site or off-site activities that are not regulated (e.g., logging of forested wetlands). This potential includes permitted, planned, or likely actions
4. The area proposed for preservation is of high quality or critical for the health of the watershed or sub-basin due to its location

In addition, please refer to Appendices 8-B, 8-C, and 8-D for additional criteria and further guidance on the use of wetland preservation in compensatory mitigation.

Mitigation Banks

Mitigation banks offer an opportunity to implement compensatory mitigation at a regional scale and provide larger, better-connected habitat in advance of impacts. Mitigation banking involves the generation of “credits” through restoring, creating, enhancing and, in exceptional circumstances, preserving wetlands and other natural resources. These credits can then be sold to permit applicants who need to offset the adverse environmental impacts of projects that would occur within the *service area* of the bank. A bank’s service area is akin to its “market area” or the geographic area in which

credits may be sold or used. Projects that use bank credits as compensation are called *debit projects*.

Wetland mitigation banks have two basic components as follows:

- **Bank site.** The bank is located at the physical site where credits for mitigation are generated by restoring, creating, enhancing, and/or preserving wetlands and associated natural resources.
- **Bank sponsor.** An organization operating under the provisions of a mitigation banking instrument that markets and sells credits, maintains a bank ledger, monitors and reports on the development of the bank site, and provides perpetual protection, management, and other services for the bank site.

Bank sites are normally protected in perpetuity by a legally binding protective covenant such as a conservation easement held by a long-term manager. Bank sponsors must also provide one or more temporary financial assurances to ensure the successful ecological development of the bank and an endowment to fund long-term management of the bank site(s).

Once released for sale, wetland bank credits are sold to permit applicants to compensate for wetland impacts that occur within the service area of the bank. As credits are sold, bankers debit them from the bank's ledger so they cannot be resold. Once all credits in a bank have been sold, the bank is closed.

Mitigation banks benefit the aquatic environment by consolidating numerous small wetland mitigation projects into larger, potentially more ecologically valuable projects. This results in economies of scale that benefit the regulated public, regulatory agencies, and the environment.

Another important feature of mitigation banks is that they are developed in advance of the adverse impacts for which they compensate, which ensures that the bank is ecologically successful before it is used to offset adverse impacts at other sites. Mitigation banks that are properly implemented offer improved ecological performance, lower mitigation costs to permit applicants, and a more streamlined permit process.

To date, few mitigation banks have been approved in Washington. However, as the regulatory agencies develop and implement the process to review and approve banks and gain experience in evaluating proposals, mitigation banks are likely to become more common in Washington.

As with any form of compensatory mitigation, the use of mitigation bank credits to offset impacts to the natural resources should not be considered prior to completing the two mitigation sequencing steps of avoidance and minimization. Then, the regulatory agency must determine whether purchasing credits from a particular bank would provide appropriate and practicable compensation for a proposed impact. In making its determination, the regulatory agency should consider whether any opportunity for mitigation that is environmentally preferable (e.g., on-site mitigation) is available, how

closely a bank's credits correlate with the particular wetland functions that would be altered by a proposed action, and whether using a bank to compensate for a proposed action would be in the best interest of the natural resource, particularly the affected watershed.

Current information on the Ecology's Wetland Mitigation Banking Program is available at <http://www.ecy.wa.gov/programs/sea/wetmitig/index.html>.

In-Lieu Fee Programs

Mitigation using in-lieu fees (ILF) occurs when a permittee pays a fee to a third party in lieu of conducting project-specific compensatory mitigation, purchasing credits from a mitigation bank, or conducting some other form of compensatory mitigation. This fee represents the expected costs to a third party to replace the wetland functions that would be lost or impaired as a result of the permittee's project. ILFs are typically held in trust by a non-profit conservation organization until they can be combined with other ILFs to finance a project that replaces the lost and impaired functions represented by those ILFs. The entity operating the trust is typically an organization with demonstrated competence in natural resource management, such as a local land trust, private conservation group, or government agency that manages natural resources.

ILF mitigation is used primarily to compensate for minor adverse impacts to the aquatic resources when more preferable forms of compensation are not available, practicable, or in the best interest of the environment. Compensation for projects that result in more substantial adverse impacts is usually provided by project-specific mitigation or a mitigation bank. ILF mitigation may be appropriate when:

- The amount of compensatory mitigation required for a project is too small to justify the cost of designing and implementing project-specific mitigation
- Practicable opportunities to conduct appropriate project-specific mitigation or purchase credits from an approved mitigation bank are not available
- Project-specific mitigation that could be implemented would likely result in a low-performing aquatic system, have a high risk of failure, be incompatible with adjacent land uses, or fail to address the needs of the watershed
- A minor amount of additional mitigation is needed to supplement project-specific mitigation that would not, by itself, fully compensate for a project's adverse environmental impact
- The permit process does not adequately compensate for cumulative effects from a project

ILF mitigation and mitigation banking share many similarities. For example, both types of mitigation allow permittees to fulfill their compensatory mitigation responsibilities by paying a fee to a third party who will accept responsibility for the required mitigation.

Also, mitigation banks and ILF-funded projects must both fully comply with existing federal mitigation guidance and policy, including a requirement for a written implementing agreement that normally includes construction plans, performance standards, monitoring and reporting provisions, a long-term management plan, financial assurances, a protective real estate agreement (e.g., conservation easement), and other measures, as appropriate, to ensure the ecological success of each project.

The fundamental difference between mitigation banking and ILF mitigation is the relative timing of the activities that offset the adverse environmental impacts for which they compensate. With mitigation banks, the environment-enhancing activities are conducted in advance of the adverse impacts, whereas with ILF mitigation, those activities normally are not conducted in advance of the adverse impacts. While specific ILF-funded mitigation projects may not always be identified in advance of project-related impacts, quickly expending collected ILFs to fund mitigation projects should be a high priority for any ILF program. However, regulatory agencies may adjust the size of ILFs to compensate for anticipated delays in expending them.

Local governments interested in developing an ILF program should evaluate the potential for cumulative and unmitigated impacts to hydrologic and water quality functions that may result from the program. Local governments should consider the use of stormwater controls (such as over-sizing ponds and swales) as a way to replace wetland hydrologic and water quality functions on-site and reduce cumulative effects from an ILF program.

Programmatic Mitigation Areas at the Local Level

Another approach for consolidating compensatory wetland mitigation involves directing compensation projects to a *programmatic mitigation area*. Simply defined, a programmatic mitigation area is a site (or series of sites) that have been identified by the local jurisdiction or a state or federal agency as a preferable site(s) for wetland compensation. Wetland compensation projects are constructed separately on the site but are all part of a common design. The programmatic mitigation sites are subject to the same minimum requirements as other compensation sites such as permanent protection, monitoring, restrictions on other activities on the site, etc.

The goal of a program for programmatic mitigation areas to allow the restoration of larger wetland areas that are important to the functioning of a stream basin or watershed because of their position in the landscape. Since many projects require relatively small areas of compensatory wetland mitigation, the programmatic mitigation area program allows the consolidation of these small compensation sites into a larger project.

The following is a summary of how a programmatic mitigation areas work?:

1. The lead regulatory entity (county or city jurisdiction, state or federal agency) identifies an area or areas as priority restoration areas
2. The regulatory entity develops a site development plan for the entire site and may either purchase the site or purchase an easement on the site

3. As projects needing compensation arise, the applicants are directed to perform either certain activities on the site (to aid in the completion of the plan) or directed to implement the site design on specific areas within the overall site

This approach has not been used much in Washington. The closest example available is Kitsap County's work along Clear Creek where several mitigation projects have been completed adjacent and complementary to each other. The county has actively directed compensation projects to the Clear Creek area. Another example is along Mill Creek in Auburn where the Emerald Green Race Track and Washington State Department of Transportation located their compensation sites in an area identified in the draft Mill Creek Special Area Management Plan or SAMP (U.S. Army Corps of Engineers 1997).

8.3.7.3 Impacts to buffers

Impacts to buffers should be handled similarly as impacts to wetlands. Applicants should be required to use all available means of modifying their development proposal, as well as using existing provisions for buffer averaging, before they are allowed to build in buffers. Where buffer impacts are unavoidable, compensation should be required in the form of wetland and/or upland restoration or enhancement.

8.3.8 Buffers

Buffers are defined in many ways (see Chapter 5 in Volume 1) but generally include relatively undisturbed, vegetated areas adjacent to critical areas such as wetlands and streams. The review of the scientific literature in Chapter 5 of Volume 1 indicates that the protection of buffers around wetlands is necessary to protect wetland functions. The scientific literature also provides considerable guidance on buffer characteristics, including widths, which are necessary to protect specific wetland functions. The literature does not provide clear direction on how to structure buffer protection and management programs. However, in addition to providing technical information on buffer effectiveness, the literature provides information that should help guide the development of buffer protection policies and regulations. This information can be summarized as follows:

- Four primary factors should be considered in determining the appropriate width and character of buffers, no matter what the physical setting is:
 - The quality, sensitivity, and functions of the aquatic resource
 - The nature of adjacent land use activity and its potential for impacts on the aquatic resource
 - The character of the existing buffer area (including soils, slope, vegetation, etc.)
 - The intended functions of the buffer