



US Army Corps
of Engineers®
Seattle District

Components of a Mitigation Plan

Per Final Rule 33 CFR Parts 325 and 332 dated April 10, 2008

Date: April 7, 2015



On April 10, 2008, the U.S. Army Corps of Engineers and the Environmental Protection Agency published the Final Rule for Compensatory Mitigation for Losses of Aquatic Resources. The Final Rule became effective on June 8, 2008. Section 33 CFR 332.4(c) describes the contents of a mitigation plan. Excerpted below are the components of a mitigation plan. Please refer to the text of the entire Final Rule for details on these components. The text of the final rule can be found at:

http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/mitig_info.aspx

(1) **Preparation and Approval.** For individual permits, the permittee must prepare a draft mitigation plan and submit it to the district engineer for review. After addressing any comments provided by the district engineer, the permittee must prepare a final mitigation plan, which must be approved by the district engineer prior to issuing the individual permit. The approved final mitigation plan must be incorporated into the individual permit by reference. The final mitigation plan must include the items described in paragraphs (c)(2) through (c)(14) of this section, but the level of detail of the mitigation plan should be commensurate with the scale and scope of the impacts.

(2) **Objectives.** A description of the resource type(s) and amount(s) that will be provided, the method of compensation (i.e., restoration, establishment, enhancement, and/or preservation), and the manner in which the resource functions of the compensatory mitigation project will address the needs of the watershed, ecoregion, physiographic province, or other geographic area of interest.

(3) **Site selection.** A description of the factors considered during the site selection process. This should include consideration of watershed needs, on-site alternatives where applicable, and the practicability of accomplishing ecologically self-sustaining aquatic resource restoration, establishment, enhancement, and/or preservation at the compensatory mitigation project site. (See §332.3(d).)

(4) **Site protection instrument.** A description of the legal arrangements and instrument, including site ownership, that will be used to ensure the long-term protection of the compensatory mitigation project site (see §332.7(a)).

(5) **Baseline information.** A description of the ecological characteristics of the proposed compensatory mitigation project site and, in the case of an application for a DA permit, the impact site. This may include descriptions of historic and existing plant communities, historic and existing hydrology, soil conditions, a map showing the locations of the impact and mitigation site(s) or the geographic coordinates for those site(s), and other site characteristics appropriate to the type of resource proposed as compensation. The baseline information should also include a delineation of waters of the United States on the proposed compensatory mitigation project site. A prospective permittee planning to secure credits from an approved mitigation bank or in-lieu fee program only needs to provide baseline information about the impact site, not the mitigation bank or in-lieu fee project site.

(6) **Determination of credits.** A description of the number of credits to be provided, including a brief explanation of the rationale for this determination. (See §332.3(f).)

i) For permittee-responsible mitigation, this should include an explanation of how the compensatory mitigation project will provide the required compensation for unavoidable impacts to aquatic resources resulting from the permitted activity.

(ii) For permittees intending to secure credits from an approved mitigation bank or in-lieu fee program, it should include the number and resource type of credits to be secured and how these were determined.

(7) **Mitigation work plan.** Detailed written specifications and work descriptions for the compensatory mitigation project, including, but not limited to, the geographic boundaries of the project; construction methods, timing, and sequence; source(s) of water, including connections to existing waters and uplands; methods for establishing the desired plant community; plans to control invasive plant species; the proposed grading plan, including elevations and slopes of the substrate; soil management; and erosion control measures.

For stream compensatory mitigation projects, the mitigation work plan may also include other relevant information, such as planform geometry, channel form (e.g., typical channel cross-sections), watershed size, design discharge, and riparian area plantings.

(8) **Maintenance plan.** A description and schedule of maintenance requirements to ensure the continued viability of the resource once initial construction is completed.

(9) **Performance standards.** Ecologically-based standards that will be used to determine whether the compensatory mitigation project is achieving its objectives. (See §332.5.)

(10) **Monitoring requirements.** A description of parameters to be monitored in order to determine if the compensatory mitigation project is on track to meet performance standards and if adaptive management is needed. A schedule for monitoring and reporting on monitoring results to the district engineer must be included. (See §332.6.)

(11) **Long-term management plan.** A description of how the compensatory mitigation project will be managed after performance standards have been achieved to ensure the long-term sustainability of the resource, including long-term financing mechanisms and the party responsible for long-term management. (See §332.7(d).)

(12) **Adaptive management plan.** A management strategy to address unforeseen changes in site conditions or other components of the compensatory mitigation project, including the party or parties responsible for implementing adaptive management measures. The adaptive management plan will guide decisions for revising compensatory mitigation plans and implementing measures to address both foreseeable and unforeseen circumstances that adversely affect compensatory mitigation success. (See §332.7(c).)

(13) **Financial assurances.** A description of financial assurances that will be provided and how they are sufficient to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with its performance standards (see §332.3(n)).

(14) **Other information.** The district engineer may require additional information as necessary to determine the appropriateness, feasibility, and practicability of the compensatory mitigation project.

Appendix D - Mitigation Plan Checklist⁵

Included	Omitted	Introduction and Summary of Document
		Cover / Title Page
		Project Name
		Reference #'s (e.g., Corps application #)
		Date of publication
		Who it was prepared for and by / contact information
		Table of Contents
		List of Figures
		List of Tables
		Responsible Parties
		Executive Summary
		Proposed Development Project
		Project description
		Project location, maps
		Type of development (existing and proposed land uses)
		Size of the development project
		Construction schedule
		Description of the development site (baseline conditions)
		Historic and current land uses and zoning designations
		Existing wetlands on or adjacent to the development site
		Other aquatic resources on or adjacent to the development site
		Known historic or cultural resources on the development site
		Maps showing the baseline conditions of the development site and adjacent properties
		Assessment of the Impacts at the Development Site
		Area (acreage) of wetland impacts
		Description of the water regime
		Description of the soils
		Description of the vegetation
		Description of fauna using the site
		Position and function of the wetland(s) in the landscape
		Description of functions provided by the wetlands

⁵ Items with asterisk (*) are required for more complex projects. See Section 2.2 for more details. If an item is not required for a draft mitigation plan it is indicated in parentheses (final plan only).

		Wetland rating	
		Buffers	
		*Water quality	
	Mitigation Approach		2: Objectives
	Mitigation sequencing		6: Determination of credits (mitigation ratios)
	Project-specific goals		
	Mitigation strategy		Use watershed approach
	Proposed Mitigation Site(s)		3: Site selection
	Location, including map		
	Site ownership		
	Site selection rationale		Use watershed approach
	Site constraints		
	Existing (Baseline) Conditions of the Mitigation Site		5: Baseline information
	Historic and current land uses and zoning designations		
	Known historic or cultural resources on the mitigation site		
	Existing wetlands on or adjacent to the development site		
	Other aquatic resources on or adjacent to the development site		
	*Maps showing current contours as surveyed. This is needed particularly when mitigation activities will alter ground elevations.		
	Description of the water regime		
	Description of the soils		
	Description of the vegetation		
	Description of fauna using the site		
	Position and function of the wetland(s) in the landscape		
	Description of functions provided by the wetlands		
	Wetland rating		
	Buffers		
	*Water quality		
	Maps related to the existing conditions of the mitigation site, existing wetlands, and adjacent properties.		

Mitigation Site Plans / Design		7: Mitigation work plan
		Description of Site Plan/Design
		Description of the water regime and how adequate amounts of water will be provided to support a wetland
		Type of development (existing and proposed land uses) Discussion of how the mitigation plan will compensate for lost and degraded functions
		Schematic drawings
		*Section drawings showing relationship of topography to water regime and vegetation
		Grading Plan / Site Maps
		Orientation and scale
		*Existing and proposed elevation contours
		*Spot elevations for low points, high points, and structures
		Property boundaries
		On-site wetland boundaries
		*On-site floodplain and ordinary high water mark boundaries
		*Survey of benchmarks
		*Location and elevation of soil borings or test pits
		*Location and elevation of water level sampling devices
		*Location of soils to be stockpiled, if any
		*Description of methods of erosion control and bank stabilization
		Buffer areas for the mitigation site and their boundaries
		Water Regime
		Description of the proposed frequency and duration of flooding, inundation, or soil saturation
		Description of the proposed groundwater and surface water sources and characteristics
		*Description of the elevation of the water table and dates measured
		*Engineering drawings of any proposed water control structures
		Soils
		Soils logs from on-site evaluation
		Description of how the soil characteristics will be affected by the mitigation activities
		*Description of the elevation of the water table and dates measured
		*Engineering drawings of any proposed water control structures

	Planting / Landscape Plans
	Topographic map showing typical planting scheme (distribution and spacing of vegetation)
	List of plant materials
	Other planting details
	Expected natural revegetation from existing seed bank and natural recruitment from nearby sites.
	Description of methods to control invasive species
	A plan for irrigating the plants
	Description of soil amendments
	*Section drawings showing water levels in relation to plant distributions
	Description of protective features (fences, signs)
	Map of location and type of habitat structures
	*Examples of Similar Mitigation Projects
	*Description of the experience the designer has had with the type of mitigation proposed
	*Examples of other sites that have used the same approach
	*Other information that demonstrates that the high-risk plan will be successful
	Site-Specific Goals, Objectives, and Performance Standards 9: Performance standards
	Goals
	Objectives for each goal
	Performance standards for each objective
	Monitoring Plan 10: Monitoring requirements
	Variables to be measured
	Sampling methods for each variable
	Schedule for sampling each variable
	A map of sampling locations or describe how the locations will be determined for each monitoring event
	*Laboratory methods to be used, if applicable
	Timetable for reporting monitoring results to the agencies (final plan only)
	Site Protection 4: Site protection instrument & 11: Long term management plan
	Describe measures that will be taken to protect the site over the long term
	Copies of legal documents (e.g., conservation easement, deed restriction) (final plan only)

Maintenance and Contingency Plans (final plan only)		8: Maintenance plan
	Maintenance plan	
	Description of and reason for each maintenance activity planned	
	Maintenance schedule for each activity (where applicable)	
	Contingency plan	12: Adaptive management plan
	Initiating procedures	
	*Description of contingency funds	
Implementation Schedule (final plan only)		7: Mitigation work plan
	Construction sequence for grading, water diversions, plantings, etc.	
	Time schedule and completions dates	
	Permit conditions specifying time limits	
*Financial Assurances (final plan only)		13: Financial assurances