

Mitigation Plan Development

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2008 Compensatory Mitigation Regulation - 33 CFR 332 Compensatory Mitigation For Losses of Aquatic Resources

- Purpose is to establish equivalent standards and criteria for all types of compensatory mitigation
- 33 CFR 332.4: Establishes 11 standard content requirements for all compensatory mitigation plans.



§332.4 – Mitigation Plan Requirements

- Identifies 12 required components for a mitigation plan. Level of information and analysis commensurate with scope and scale of the proposed impacts.
 1. Objective(s) of the compensatory mitigation project (332.4)
 2. Site selection information (332.2)
 3. Site protection instrument to be used (332.7)
 4. Baseline information (impact and compensation site) (332.4)
 5. Number of credits to be provided (332.2)
 6. Mitigation work plan (332.4)
 7. Maintenance plan (332.7)
 8. Ecological performance standards (332.5)
 9. Monitoring requirements (332.6)
 10. Long-term management plan (332.7)
 11. Adaptive management plan (332.7)
 12. Financial assurances (332.3)



1. Mitigation Objectives*

- Restore sustainable wetland ecosystems
 - ▶ Restore or enhance hydrology, native wetland species composition, diversity, structure, and/or hydric soils indicators.
 - ▶ “Restore native wetland pine savannah vegetation and hydrology to meet Mobile District Wet Pine Flats Performance standards.”
- Restore stable stream ecosystems
 - ▶ 2012 Stream SOP has 13 example objectives addressing hydrology (7), fluvial geomorphology (4), or biology(2).
 - ▶ Restore appropriate stream pattern, profile, dimension based on reference streams, and/or instream aquatic habitat, and/or appropriate riparian buffers habitats.
- Detailed objectives are the foundation that allow for identification of detailed site management actions and detailed performance standards.



2. Site Selection

- Ownership
- Discussion of Wetland Delineation/JD. Verify locations and amounts of wetland habitats and stream types, identify uplands within project boundaries.
- Discuss level of impacts to wetlands and streams and the suitability of site to achieve objectives and level of functional lift.
- Discuss easements, utility corridors, or surrounding land uses that may affect site management.
- Identify any known or expected Section 7 and Section 106 issues.



3. Site Protection

- All mitigation sites required to be protected typically with conservation easement or restrictive covenant.
- Restrictive covenant is an agreement signed by applicant and Corps of Engineers.
- Conservation easement is an agreement between applicant and third party conservation organization. Corps approves the document but does not sign the agreement.
- Coordinate Corps templates early in the evaluation process. Legal review of proposed changes is now a leading cause of delay in our approval process.



4. Baseline Information

- Baseline should be reported for all habitats within the mitigation site, including those not generating mitigation credit (e.g. uplands, stable stream channels).
- For wetlands and streams, baseline assessment should utilize the same variables and data collection methods required for demonstrating success criteria/performance standards.
- The baseline assessment information should be detailed enough to justify the level of functional impacts that exist that support the objectives and need for the proposed land management actions, including no management needed.



5. Number of Credits

- Needs to identify the approved functional assessment methods used.
- Needs to include calculation worksheets for determining number of compensatory mitigation credits required.
- Needs to include calculation worksheets for determining number of compensatory mitigation credits generated by mitigation project.



6. Mitigation Work Plan

- Mitigation work plan needs to identify land management actions to be performed for each wetland and stream type/stream reach, riparian buffer, and uplands within the mitigation project site.
- Require an implementation timetable identifying when specific required land management actions will be accomplished.
- We always hope for the best, but every mitigation work plan needs to have a contingency plan procedure.



6a. Contingency Plan / Remedial Actions

- Identifies the formal notification process and decision-making timelines if required land management actions or performance standards are not achieved in the required time periods.
- Identifies the conditions when financial assurances will be implemented.
- Identifies the conditions and circumstances for declaring project to be Default.



7. Maintenance Plan

- Identify target condition that all habitats will be maintained for the long-term (usually this reflects that final performance standard metrics in the approved mitigation plan will be sustained).
- Identify expected long-term site maintenance actions and frequency (e.g. exotic species control, road crossing maintenance etc).
- Identify responsible party and availability of long-term financial assurances if required.



8. Ecological Performance Standards

- Extremely important. Determines what applicant is accountable for demonstrating to fulfill mitigation responsibilities.
- Are based on standardized measurable and achievable ecological criteria (not action), that are habitat specific. For forested systems, may be based on trends and mid-successional target conditions.
- Also require a timetable specifying when specific successional and final success criteria are achieved.



9. Monitoring Requirements

- Monitor the same ecological data metrics using the same sampling methods used for baseline report and determining performance standards.
- Annual monitoring should report on land management actions performed, measurable progress towards achieving performance standards, and the need for adaptive management.
- Full accountability monitoring of all habitats within the mitigation site, even those areas not generating mitigation credit.



Annual Monitoring is Important for Determined Successful

- Annual monitoring reports and compliance inspections are key to early determinations on the likely success of achieving performance standards, if adaptive management is necessary, or alternative mitigation is needed. Make these determinations as early as possible.
- RGL 08-03: Minimum of five years
 - ▶ Avoid conditioning monitoring timeframes on expectations. Mitigation plan should state that monitoring will be performed until the Corps determines that required performance standards are achieved.
 - ▶ Longer monitoring periods if slow development rates (e.g., planting clear-cut forested wetlands), reduced monitoring if performance standards are achieved early.



Contents of Annual Reports

- Report on land management actions accomplished and compliance with implementation timetable.
- Report on status of achieving each of the required performance standards.
- Report on proposed land management actions planned for the upcoming year.
- Report on status of any required financial assurances.



11. Adaptive Management/ Contingency Plan

- Identifies when adaptive management is appropriate.
- Identifies the procedure and written requirements for modifying the approved mitigation plan.
- Identifies when adaptive management is not appropriate (slovenliness).



10. Long-Term Management

- Identify long-term ownership/responsible party
- Identify long-term land management responsibilities and requirements.
- Identify long-term monitoring and reporting requirements.
- Identify financial assurance mechanism for funding long-term management actions.



10a. Long-term Stewardship Funds

- If mitigation site ownership changes or management responsibilities are transferred, require written agreement by new owner accepting maintenance responsibilities.
- If long-term management funds are provided for project, require responsible party to provide written acceptance on the purpose and use of the funds, including that they will always be maintained in a non-wasting account, and the principle cannot be used without Corps approval.



11. Adaptive Management

- Land management strategies and timeframes typically require adaptive strategies.
- Ecological objectives and performance standards typically do not change, if they do, the new goals must be accepted, and typically require changes to the amount of mitigation required.
- If goals cannot be achieved, collect data and implement the Default determination procedure early.



12. Financial Assurances

- Construction Financial Assurance
 - required at start of project, usually LOC, Performance Bond, or Casualty Insurance
- Long-Term Stewardship Financial Assurance
 - required near end of project, usually non-wasting interest bearing account that is required to be fully funded 2-5 years before completion of project.

Not all projects require these. If required, require a report of funding status in annual reports.



Default Section

- Identifies conditions that invoke an evaluation of default.
- Communication procedure.
- Results of making a default determination.
- Remedy use of financial assurances or providing alternative mitigation.



South Mississippi Mitigation Bank

Thank You

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IRT Chair

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