



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS  
441 G STREET NW  
WASHINGTON, D.C. 20314-1000

81 AUG 2009

CECW-PC

MEMORANDUM FOR COMMANDERS, MAJOR SUBORDINATE COMMANDS

SUBJECT: Implementation Guidance for Section 2036 (a) of the Water Resources Development Act of 2007 (WRDA 07) – Mitigation for Fish and Wildlife and Wetlands Losses

1. Section 2036(a) of WRDA 2007 amends Section 906 (d) of the Water Resources Development Act of 1986 (33 U.S.C. 2283(d)) to:

a. ensure that any report, submitted to Congress for authorization, shall not select a project alternative unless such report contains (1) a specific recommendation with a specific plan to mitigate fish and wildlife losses or (2) the Secretary determines that the project will have negligible adverse impacts;

b. ensure that other habitat types are mitigated to not less than in-kind condition, to the extent possible;

c. require mitigation plans comply with the mitigation standards and policies of the regulatory programs administered by the Secretary and require specific mitigation plan components, including; 1) monitoring until successful, 2) criteria for determining ecological success, 3) a description of available lands for mitigation and the basis for the determination of availability, 4) the development of contingency plans (i.e., adaptive management), 5) identification of the entity responsible for monitoring; and 6) establish a consultation process with appropriate Federal and State agencies in determining the success of mitigation.

A copy of Section 906 (d) as amended by Section 2036(a) of WRDA 2007 is enclosed.

2. References.

a. Section 906(d) of the Water Resources Development Act 1986 (33 U.S.C. 2283(d)), as amended.

b. ER 1105-2-100 dated 22 April 2000, Planning Guidance Notebook.

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c. Compensatory Mitigation for Losses of Aquatic Resources; Final Rule; Federal Register, Volume 73, No. 70, April 10, 2008.

d. Conference Report to Accompany H.R. 1495, Report 110-280, dated July 31, 2007, Joint Explanatory Statement of the Committee of Conference.

3. Purpose. This memorandum provides guidance for Civil Works compensatory mitigation as described in Section 2036(a) of WRDA 2007, which amends Section 906(d) of WRDA 1986. This guidance applies to Civil Works water resources projects that require specific authorization. Mitigation planning for Continuing Authorities Program (CAP) projects should follow the existing guidance found in section C-3(d) and C-3(e) of ER 1105-2-100, and applicable guidance in Appendix F of ER 1105-2-100.

4. Background. ER 1105-2-100 requires that mitigation planning be an integral part of the overall planning process. The mitigation planning process includes avoiding an impact altogether by not taking a certain action or part of an action; minimizing impacts by limiting the degree or magnitude of an action; rectifying the impact by repairing, rehabilitating or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; compensating for lost non-negligible resources through in-kind mitigation to the extent incrementally justified employing a watershed approach in mitigation planning; and, identifying the features of the mitigation plan and how it will be implemented in the project decision document. Based upon an analysis of references 2a, 2b and 2c above, Civil Works guidance on mitigation planning is consistent with the standards and polices of the Corps Regulatory Program for wetlands mitigation and Section 2036 (a) of WRDA 2007. The following guidance supplements the existing guidance on mitigation planning in ER 1105-2-100.

5. Policy.

a. Mitigation Planning. It is the policy of the Corps of Engineers Civil Works program to demonstrate that damages to all significant ecological resources, both terrestrial and aquatic, have been avoided and minimized to the extent practicable, and that any remaining unavoidable damages have been compensated to the extent possible, as discussed in ER 1105-2-100, paragraph C-3(d) (3) (1). The Corps will continue to utilize the mitigation planning process described in ER 1105-2-100 in order to compensate for non-negligible impacts to aquatic and terrestrial resources to the extent incrementally justified and to ensure that the recommended project will not have more

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than negligible adverse impacts on ecological resources. ER 1105-2-100, paragraph C-3(e), requires the use of a habitat-based methodology, supplemented with other appropriate information to describe and evaluate the impacts of the alternative plans, and to identify the mitigation need of the with-project condition as measured against the future without-project condition. Once a mitigation need has been identified, mitigation objectives must be developed to address the identified losses. Mitigation objectives are specific actions to be taken to avoid and minimize adverse affects, and identify specific amounts of mitigation required to compensate for remaining unavoidable losses. The preparation of mitigation plans, including objectives, plan design, determination of success criteria and monitoring needs will be undertaken in coordination with Federal and State resources agencies to the extent practicable.

Mitigation planning will continue to be accomplished in a watershed context. The ultimate goal of the watershed approach is to maintain and improve the quality and quantity of the natural resources in the watershed. Mitigation planning efforts should identify and prioritize natural resource restoration as well as preserve existing natural resources that are important for maintaining or improving the ecological functions of the watershed.

b. Mitigation Plans. Each recommended mitigation plan will be described in the project decision document and shall include the following:

- (1) A description of the physical action to be undertaken to achieve the mitigation objectives within the watershed in which such losses occur and, in any case in which mitigation must take place outside the watershed, a justification detailing the rationale for undertaking the mitigation outside of the watershed;
- (2) The type, amount, and characteristics of the habitat being restored;
- (3) Ecological success criteria for mitigation based on replacement of lost functions and values of the habitat, including hydrologic and vegetative characteristics. The ecological success criteria should be included in the draft feasibility report;
- (4) A plan for monitoring to determine the success of the mitigation, including the cost and duration of any monitoring and the entities responsible for any monitoring. If it is not practicable to identify the entities responsible for monitoring in the project decision document, the responsible parties will be identified in the project partnership agreement.

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(5) A contingency plan (i.e., adaptive management) for taking corrective actions in cases where monitoring demonstrates that mitigation measures are not achieving ecological success.

(6) Should land acquisition be proposed as part of the mitigation plan, a description of the lands or interests in lands to be acquired for mitigation and the basis for a determination that such lands are available for acquisition;

c. Monitoring of Mitigation Results. Paragraph C-3(e) (8) (a) (3) of ER 1105-2-100 requires the development of mitigation planning objectives to guide plan formulation, determine the appropriate mitigation management features and to establish performance standards for evaluating each increment of mitigation management. These performance standards form the basis for determining ecological success. A monitoring plan will be developed for all mitigation plans during plan formulation to monitor the ecological success of each mitigation measure. Monitoring plans are generally not complex but the scope and duration should include the minimum monitoring actions necessary to evaluate success. The monitoring plan must be described in the decision document and must include the rationale for monitoring, including key project specific parameters to be measured and how the parameters relate to achieving the desired outcomes or making a decision about ecological success, the nature of the monitoring including duration and /or periodicity, and the disposition of the information and analysis as well as the cost of the monitoring plan, the party responsible for carrying out the monitoring plan and a project closeout plan. The appropriateness of a monitoring plan will be reviewed as part of the decision document review including Agency Technical Review (ATR) and Independent External Peer Review (IEPR) as necessary. Additional guidance concerning the development of performance standards will be provided in the near future.

Most mitigation measures will only require periodic inspection as part of normal operations and maintenance (O&M) to monitor to determine if ecological success is being achieved. In accordance with reference 2d, above, and ER 1105-2-100, section C-3(e) (10), monitoring is part of the operations and maintenance (O&M) of a project, monitoring to determine the success of mitigation measures is primarily the responsibility of the non-Federal sponsor, and the cost of such monitoring should be included in the operations and maintenance cost for the mitigation plan and described in the O&M manual. For some mitigation measures, cost-shared monitoring may be appropriate where risk and uncertainty of achieving ecological success is high due to the complexity of the mitigation measures. Recommendations for cost shared monitoring will be considered and approved during review of the decision document. Monitoring costs for navigation projects will be consistent with the apportioned O&M costs between the

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Federal and non-Federal interests. Monitoring shall continue until it has been demonstrated that the mitigation has met the ecological success criteria as documented by the District Engineer, as discussed in section 6, below, and determined by the Division Commander.

d. Contingency Plan (Adaptive Management). An adaptive management plan (i.e., a contingency plan) will be developed for all mitigation plans. The adaptive management plan must be appropriately scoped to the scale of the project. If the need for a specified adjustment is anticipated due to high uncertainty in achieving the desired outputs/results, the nature and cost of such actions should be explicitly described in the decision document for the project requiring authorization. The reasonableness and the cost of the adaptive management plan will be reviewed as part of the decision document. Costly adaptive management plans may indicate the need to reevaluate the formulation of the mitigation measure. The information generated by the monitoring plan will be used by the District Engineer in consultation with the Division Commander to guide decisions on operational or structural changes (adaptive management) that may be needed to ensure that the mitigation measures meet the success criteria of the mitigation plan. The adaptive management plan cost should be shown in the 06 feature code of the cost estimate. If the results of the monitoring program support the need for physical modifications to the project, the cost of the changes will be cost shared with the non-Federal sponsor and must be concurred in by the non-Federal sponsor. The appropriate HQUSACE RIT should be advised at such time that it is determined a modification to a project is required. Any changes to the adaptive management plan approved in the decision document must be coordinated with HQUSACE at the earliest possible opportunity. If a needed change is not part of the approved adaptive management plan and is determined by HQUSACE to be a deficiency correction the annual budget guidance to initiate a study for such corrections should be followed. Significant changes to the project required to achieve mitigation success and which cannot be appropriately addressed through operational changes or through the approved adaptive management plan may need to be examined under separate authority, such as Section 216, River and Harbor and Flood Control Act of 1970.

6. Consultation. Each Division Commander shall establish an annual consultation process with the appropriate Federal agencies and each State in which the applicable project is located to determine if a mitigation plan is successful. The District Engineer shall be responsible for consulting with the Federal and State agencies concerning the success of mitigation efforts within each district, and preparing a report summarizing the results of the consultation(s). The report shall evaluate the ecological success of the mitigation as of the date on which the report is submitted; the likelihood that the mitigation will achieve success as defined in the mitigation plan; the projected timeline

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for achieving that success; and any recommendations for improving the likelihood of success. The Division Commander shall review the report(s), and recommend actions to the District Engineer designed to improve the likelihood of success, as needed. The results of the consultation(s) shall be reported on an annual basis by the Division Commander, no later than 1 October of each year, to the appropriate HQUSACE RIT. The RIT will provide the report to CECW-IF for inclusion in the status report discussed in paragraph 7, below.

7. Status Report. In accordance with Section 2036 (b) of WRDA 2007, a status report will be submitted by the Secretary to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate concurrent with the President's annual request for appropriations for the Civil Works Program. This report will include the status of all projects under construction, all projects for which the President requests funds for the next fiscal year, and all projects that have undergone or completed construction but have not yet completed mitigation. In addition, the status report will include the results of the consultation described in paragraph 6, above. Development of the status report is the responsibility of CECW-IF and reporting requirements will be provided by that office.

8. This guidance is effective immediately and will be incorporated into ER 1105-2-100 upon the next revision.

FOR THE COMMANDER:



THEODORE BROWN, P.E.  
Chief, Planning and Policy Division  
Directorate of Civil Works

Encl

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COMMANDER, SOUTHWESTERN DIVISION

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## § 2283. Fish and wildlife mitigation

## (a) Steps to be taken prior to or concurrently with construction.

(1) In the case of any water resources project which is authorized to be constructed by the Secretary before, on, or after the date of enactment of this Act [enacted Nov. 17, 1986], construction of which has not commenced as of the date of enactment of this Act [enacted Nov. 17, 1986], and which necessitates the mitigation of fish and wildlife losses, including the acquisition of lands or interests in lands to mitigate losses to fish and wildlife, as a result of such project, such mitigation, including acquisition of the lands or interests--

(A) shall be undertaken or acquired before any construction of the project (other than such acquisition) commences, or

(B) shall be undertaken or acquired concurrently with lands and interests in lands for project purposes (other than mitigation of fish and wildlife losses),

whichever the Secretary determines is appropriate, except that any physical construction required for the purposes of mitigation may be undertaken concurrently with the physical construction of such project.

(2) For the purposes of this subsection, any project authorized before the date of enactment of this Act on which more than 50 percent of the land needed for the project, exclusive of mitigation lands, has been acquired shall be deemed to have commenced construction under this subsection.

## (b) Acquisition of lands or interests in lands for mitigation.

(1) After consultation with appropriate Federal and non-Federal agencies, the Secretary is authorized to mitigate damages to fish and wildlife resulting from any water resources project under his jurisdiction, whether completed, under construction, or to be constructed. Such mitigation may include the acquisition of lands, or interests therein, except that--

(A) acquisition under this paragraph shall not be by condemnation in the case of projects completed as of the date of enactment of this Act [enacted Nov. 17, 1986] or on which at least 10 percent of the physical construction on the project has been completed as of the date of enactment of this Act [enacted Nov. 17, 1986]; and

(B) acquisition of water, or interests therein, under this paragraph, shall not be by condemnation.

The Secretary, shall, under the terms of this paragraph, obligate no more than \$ 30,000,000 in any fiscal year. With respect to any water resources project, the authority under this subsection shall not apply to measures that cost more than \$ 7,500,000 or 10 percent of the cost of the project, whichever is greater.

(2) Whenever, after his review, the Secretary determines that such mitigation features under this subsection are likely to require condemnation under subparagraph (A) or (B) of paragraph (1) of this subsection, the Secretary shall transmit to Congress a report on such proposed modification, together with his recommendations.

(c) Allocation of mitigation costs. Costs incurred after the date of enactment of this Act [enacted Nov. 17, 1986], including lands, easements, rights-of-way, and relocations, for implementation and operation, maintenance, and rehabilitation to mitigate damages to fish and wildlife shall be allocated among authorized project purposes in accordance with applicable cost allocation procedures, and shall be subject to cost sharing or reimbursement to the same extent as such other project costs are shared or reimbursed, except that when such costs are covered by contracts entered into prior to the date of enactment of this Act, such costs shall not be recovered without the consent of the non-Federal interests or until such contracts are complied with or renegotiated.

## (d) Mitigation plans as part of project proposals.

(1) In general. After November 17, 1986, the Secretary shall not submit any proposal for the authorization of any water resources project to Congress in any report, and shall not select a project alternative in any report, unless such report contains (A) a recommendation with a specific plan to mitigate fish and wildlife losses created by such project, or (B) a determination by the Secretary that such project will have negligible adverse impact on fish and wildlife. Specific mitigation plans shall ensure that impacts to bottomland hardwood forests are mitigated in-kind, and other habitat types are mitigated to not less than in-kind conditions, to the extent possible. In carrying out this subsection, the Secretary shall consult with appropriate Federal and non-Federal agencies.

(2) Design of mitigation projects. The Secretary shall design mitigation projects to reflect contemporary understanding of the science of mitigating the adverse environmental impacts of water resources projects.

(3) Mitigation requirements.

(A) In general. To mitigate losses to flood damage reduction capabilities and fish and wildlife resulting from a water resources project, the Secretary shall ensure that the mitigation plan for each water resources project complies with the mitigation standards and policies established pursuant to the regulatory programs administered by the Secretary.

(B) Inclusions. A specific mitigation plan for a water resources project under paragraph (1) shall include, at a minimum--

(i) a plan for monitoring the implementation and ecological success of each mitigation measure, including the cost and duration of any monitoring, and, to the extent practicable, a designation of the entities that will be responsible for the monitoring;

(ii) the criteria for ecological success by which the mitigation will be evaluated and determined to be successful based on replacement of lost functions and values of the habitat, including hydrologic and vegetative characteristics;

(iii) a description of the land and interests in land to be acquired for the mitigation plan and the basis for a determination that the land and interests are available for acquisition;

(iv) a description of--

(I) the types and amount of restoration activities to be conducted;

(II) the physical action to be undertaken to achieve the mitigation objectives within the watershed in which such losses occur and, in any case in which the mitigation will occur outside the watershed, a detailed explanation for undertaking the mitigation outside the watershed; and

(III) the functions and values that will result from the mitigation plan; and

(v) a contingency plan for taking corrective actions in cases in which monitoring demonstrates that mitigation measures are not achieving ecological success in accordance with criteria under clause (ii).

(C) Responsibility for monitoring. In any case in which it is not practicable to identify in a mitigation plan for a water resources project the entity responsible for monitoring at the time of a final report of the Chief of Engineers or other final decision document for the project, such entity shall be identified in the partnership agreement entered into with the non-Federal interest under section 221 of Flood Control Act of 1970 (42 U.S.C. 1962d-5b).

(4) Determination of success.

(A) In general. A mitigation plan under this subsection shall be considered to be successful at the time at which the criteria under paragraph (3)(B)(ii) are achieved under the plan, as determined by monitoring under paragraph (3)(B)(i).

(B) Consultation. In determining whether a mitigation plan is successful under subparagraph (A), the Secretary shall consult annually with appropriate Federal agencies and each State in which the applicable project is located on at least the following:

(i) The ecological success of the mitigation as of the date on which the report is submitted.

(ii) The likelihood that the mitigation will achieve ecological success, as defined in the mitigation plan.

(iii) The projected timeline for achieving that success.

(iv) Any recommendations for improving the likelihood of success.

(5) Monitoring. Mitigation monitoring shall continue until it has been demonstrated that the mitigation has met the ecological success criteria.

(e) First enhancement costs as Federal costs. In those cases when the Secretary, as part of any report to Congress, recommends activities to enhance fish and wildlife resources, the first costs of such enhancement shall be a Federal cost when--

(1) such enhancement provides benefits that are determined to be national, including benefits to species that are identified by the National Marine Fisheries Service as of national economic importance, species that are subject to treaties or international convention to which the United States is a party, and anadromous fish;

(2) such enhancement is designed to benefit species that have been listed as threatened or endangered by the Secretary of the Interior under the terms of the Endangered Species Act, as amended (16 U.S.C. 1531, et seq.), or

(3) such activities are located on lands managed as a national wildlife refuge.

When benefits of enhancement do not qualify under the preceding sentence, 25 percent of such first costs of enhancement shall be provided by non-Federal interests under a schedule of reimbursement determined by the Secretary. Not more than 80 percent of the non-Federal share of such first costs may be satisfied through in-kind contributions, including facilities, supplies, and services that are necessary to carry out the enhancement project. The non-Federal share of operation, maintenance, and rehabilitation of activities to enhance fish and wildlife resources shall be 25 percent.

(f) National benefits from enhancement measures for Atchafalaya Floodway System and Mississippi Delta Region projects. Fish and wildlife enhancement measures carried out as part of the project for Atchafalaya Floodway System, Louisiana, authorized by Public Law 99-88, and the project for Mississippi Delta Region, Louisiana, authorized by the Flood Control Act of 1965, shall be considered to provide benefits that are national for purposes of this section.

(g) Fish and Wildlife Coordination Act supplementation. The provisions of subsections (a), (b), and (d) shall be deemed to supplement the responsibility and authority of the Secretary pursuant to the Fish and Wildlife Coordination Act [16 USCS §§ 661 et seq.], and nothing in this section is intended to affect that Act.