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In Reply Refer To:  
AESO/FA  
22410-2006-FA-0029

June 19, 2006

Memorandum

To: Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico  
(Attn: Dean Watkins, Lynn Wellman) (ARD-ES)

From: Field Supervisor

Subject: Review of Proposed Rule to Revise Regulations Governing Compensatory Mitigation For Losses of Aquatic Resources (33 CFR Part 325 and 332, and 40 CFR Part 230) (ER 6/299)

We received ER 6/299 on March 31, 2006, regarding publication in the Federal Register (71 FR 15520-15556) on March 28, 2006, of the subject Proposed Rule of the U.S. Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA). We were to provide comment to the Regional Director by April 24, 2006. Due to workload we were unable to complete a review within that time frame. The RD submitted comments to the Director on May 11, 2006. On May 23, 2006 the Corps and EPA published in the Federal Register (71 FR 29604) an extension of the comment period until June 30, 2006. The following are our comments on the Proposed Rule.

Our primary concern is the scope of impact assessment and mitigation that the Corps applies to 404-permitted activities. Any mitigation approach, whether a bank, in-lieu fee, or other, will not preserve and protect the biological integrity of jurisdictional waters and wetlands if the scope of impact analysis and mitigation is limited to permit-related activities below the ordinary high water mark. The Corps must institutionalize principles and policies that recognize the relationship that adjacent uplands have with jurisdictional waters and wetlands. We believe any mitigation program that does not address this fundamental ecological relationship is destined to fail to meet the goal of the Clean Water Act to preserve and protect the physical, chemical, and biological integrity of our Nation's waters and wetlands. The Corps recently expanded its scope of analysis for the Lone Mountain residential development project in Arizona, recognizing their authority to do so under authority of the Clean Water Act and National Environmental Policy Act. The rationale for this approach is contained within correspondence we have provided to the Corps on Lone Mountain and many other 404-permit applications, and can be viewed on our internet homepage at <http://www.fws.gov/arizonaes/> under Document Library.

Our secondary concern is the manner in which the Corps will quantify resource functions for the purpose of designing and monitoring mitigation proposals. Simply utilizing acreage or linear

feet is not sufficient to ensure that restored or created ecosystems are providing the same biological functions that have been lost. In Arizona, the Corps typically couples acreage with percent plant survival on a mitigation plot to satisfy mitigation requirements. We believe this system is inefficient at protecting the integrity of waters because not enough baseline information is gathered regarding functions lost to 404-permit related activities to illustrate that a mitigation plan is in fact replacing those functions. We support the use of objective empirical techniques of conservation biology to quantify functions (i.e. biotic measures of density, species richness, diversity, species evenness, etc.). This would be preferable to subjective tools such as the Hydrogeomorphic Approach or Habitat Evaluation Procedures which are too easily manipulated to provide a desired output and prone to multiple interpretations.

The Proposed Rule states, Part 332.1(b), page 15534:

Use of resources as compensatory mitigation that are not otherwise subject to regulation under Section 404 of the Clean Water Act and/or Sections 9 or 10 of the Rivers and Harbors Act of 1899 does not in and of itself make them subject to such regulation.

And at Part 230.91(b), page 15545:

Use of resources as compensatory mitigation that are not otherwise subject to regulation under Section 404 of the Clean Water Act does not in and of itself make them subject to such regulation.

We believe this language is inaccurate and inconsistent with applicable Federal policy and regulation of the Regulatory Program under Section 404 of the Clean Water Act, and should be removed from the proposed rulemaking. Of particular concern is the meaning of this passage relative to the use of upland buffers, located above the ordinary high water mark, in the compensatory mitigation program. The Proposed Rule acknowledges the role of uplands on page 15527, where it states "...the district engineer may grant compensatory mitigation credit for upland areas within a compensatory mitigation project, if those uplands increase the overall ecological functioning of the compensatory mitigation site or other aquatic resources in the watershed or ecoregion." The wording in Part 332.1(b) could be interpreted to mean that uplands can be evaluated in a 404 permit application package where they contribute mitigation benefits, but can be dismissed where permit-related project amenities in uplands impair or destroy the biological integrity of jurisdictional waters.

It is our position that the totality of permit-related project impacts must be assessed and mitigated, both above and below the ordinary high water mark, as they contribute to the functioning of waters and wetlands. The Corps recognized this in the August 9, 2001, Proposal to Reissue and Modify Nationwide Permits (66 FR 42070-42100), which states on page 42071 "The Corps statutory authority to require vegetated buffers next to streams and other open waters originates in the goal of the CWA which is to restore and maintain the chemical, physical and biological integrity of Nation's waters." If the Corps intends to evaluate the benefit of upland buffers in its mitigation program, it must also evaluate the detriments of the loss of upland buffers in its project impact analysis. This would be consistent with the Corps regulations involving the Section 404 public interest review (33 CFR Part 320.4), which state:

The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments.

In regard to determining the appropriate scope of analysis, the Corps' National Environmental Policy Act Implementing Regulations for the Regulatory Program (Appendix B to 33 CFR Part 325) states:

In all cases, the scope of analysis used for analyzing both impacts and alternatives should be the same scope of analysis used for analyzing the benefits of the proposal.

Clearly, the contribution of upland buffers to the ecological functioning of waters and wetlands is considered a benefit of 404 project proposals. Accordingly, the detrimental effects of upland losses attributable to permit-related project activities should be assessed and mitigated. This issue is particularly critical in Arizona where massive urban development is threatening the biological integrity of waters on regional landscape scales without adequate mitigation because the Corps' scope of impact analysis and mitigation is improperly confined below the ordinary high water mark.

This approach would also be consistent with Corps regulations (CFR 33, Appendix B to Part 325) which state the District Engineer is considered to have authority over portions of the project beyond the limits of jurisdiction "where the environmental consequences of the larger project are essentially products of the Corps permit action." If bridge spanning all jurisdictional waters on a project site is impracticable, thus avoiding impacts to waters, a proposed action could not occur but for the issuance of a Section 404 permit and it would be within Corps authority to extend the scope of impact analysis and mitigation beyond the limits of the ordinary high water mark.

In regard to using a watershed approach to compensatory mitigation, the Proposed Rule states, at Part 332.3(c)(2), page 15536, and at Part 230.3(c), page 15547:

It includes the protection and maintenance of terrestrial resources, such as nonwetland riparian areas and uplands, when those resources contribute to or improve the overall ecological functioning of aquatic resources in the watershed.

We recommend the word "when" be replaced with the word "because." The current wording implies that in some cases the biological integrity of waters and wetlands operates in a landscape vacuum. We do not believe this is the case. On the contrary, an intimate biological relationship exists between jurisdictional waters/wetlands and adjacent uplands, and the biological integrity of waters/wetlands is inextricably linked to upland resources. For instance, Gila woodpeckers use saguaros located in adjacent uplands for nesting while foraging extensively along desert washes; desert mule deer use both uplands and xeroriparian washes; and herpetofaunal species are rapidly lost from riparian areas as these areas become isolated from uplands. This relationship is recognized by the 404(B)(1) Guidelines for the Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 23). For instance:

Part 230.5 General procedures to be followed

(f) Identify and evaluate any special or critical characteristics of the candidate disposal site, and *surrounding areas* (italics added) which might be affected by use of such site, related to their living communities or human uses (subparts D, E, and F).

Part 230.10 Restrictions on discharge

(a) Except as provided under section 404(b)(2), no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have *other significant adverse environmental consequences* (italics added).

Part 230.11 Factual determinations

(h) Determination of secondary effects on the aquatic ecosystem.

(1) *Secondary effects* (italics added) are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material.

Part 230.32 Other Wildlife

(a) Wildlife associated with aquatic ecosystems are resident and transient mammals, birds, reptiles, and amphibians.

The loss and/or impairment of upland biotic communities could result in adverse “secondary effects” on the population dynamics of “other wildlife” that utilize waters/wetlands and “surrounding areas”, through habitat loss or fragmentation. This type of disturbance can disrupt intra- and interspecific wildlife interactions, resulting in population and community shifts, thereby altering and/or impairing the biological integrity of waters/wetlands.

The Proposed Rule states, at Part 332.3(f), page 15537, and at Part 230.93(f), page 15548:

The district engineer must require an amount of compensatory mitigation for unavoidable impacts to aquatic resources sufficient to replace lost aquatic resource functions. In cases where functional assessment methods are available, appropriate, and practical to use, district engineers should use those functional assessment methods to determine how much compensatory mitigation should be required. If a functional assessment is not used, a minimum one-to-one acreage or linear foot replacement ratio should be used as a surrogate for functional replacement.

We do not believe this approach will adequately compensate for lost functions. This section, and other related sections, should be rewritten to require that Districts work directly with EPA, the States, and the field offices of FWS to develop empirical functional assessment methods prior to implementation of any mitigation program developed under the Proposed Rule. We support the use of established objective techniques of conservation biology, rather than subjective modeling or expert estimating. Important concepts to consider will include, but are not limited to empirical criteria, role of upland buffers, minimum patch size, diversity, and productivity.

Under Part 332.4, page 15539, and Part 230.94, page 15550, the Proposed Rule discusses the gathering of Baseline Information for the impact site. These sections need to be rewritten to

require the use of empirical functional assessment techniques that have been developed in coordination with FWS and other appropriate agencies and stakeholders.

Under Part 332.5, page 15539, and Part 230.95, page 15550, the Proposed Rule discusses ecological performance standards. Again, we believe that well-established methods of conservation biology should be used to develop objective empirical standard. These sections, and related sections, should be rewritten to reflect this need.

The Proposed Rule states, Part 332.6(c), page 15540, and Part 230.96(c), page 15551:

Monitoring reports may also include the results of functional assessments used to provide quantitative or qualitative measures of the functions provided by the compensatory mitigation project site.

We believe qualitative measures have outlived their usefulness because they are prone to multiple interpretations making it difficult for agencies and stakeholders to reach consensus on measures of biological function. We urge the Corps to lead the way in utilizing only quantitative measures based on accepted techniques of conservation biology. This would provide much-needed consistency and improve consensus building within the Regulatory Program. These and other related sections should be rewritten to reflect this need.

The Proposed Rule states at Part 332.8(b)(3), page 15541, and at Part 230.98(b)(3), page 15552:

The primary role of the IRT is to facilitate the establishment of mitigation banks through the development of mitigation banking instruments.

We believe the primary role of the Interagency Review Team (IRT) should be to ensure that mitigation banks and their instruments are consistent with applicable Federal law, policy, and regulation. Also, a conflict resolution process that potentially involves elevating issues all the way to the Secretary's Office is unnecessary considering the 404(q) Memorandum of Agreement has already delegated these responsibilities to regional and field offices of FWS.

Under these same parts, pages 15543 and 15554, the Proposed Rule discusses determining credits through units of measure and functional assessments. This section should be rewritten to address the issues discussed and ensure objectivity and consistency.

Under these same parts, pages 15543 and 15555 the Proposed Rule states "...the district engineer may authorize the use of riparian area, buffer and/or upland credits if he determines that these areas are essential to sustaining watershed functions..." We suggest the words "if he determines that" should be replaced with "because." Again, widely accepted principles of conservation biology already recognize that the functions of uplands, buffers, waters, wetlands, and watersheds are all intimately linked.

We suggest the draft rule be rewritten to reflect these issues and republished as a revised proposal. We thank you for the opportunity to review the subject Environmental Review and look forward to reviewing a revised proposal. We recommend coordination of this review with the Arizona Game and Fish Department. If you have any questions, please contact Mike Martinez (x224) or Debra Bills (x239).

/s/ Steven L. Spangle

cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ

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