



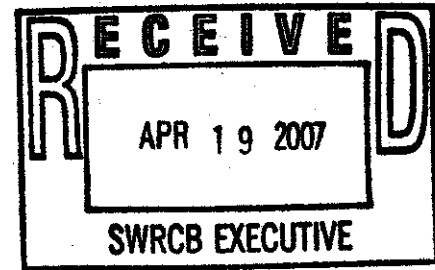
Wetland/Riparian Policy
Deadline: 4/19/07 12 noon

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

April 19, 2007

REPLY TO
ATTENTION OF:

Office of the Chief
Regulatory Division



Song Her
Clerk to the Board, Executive Office
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Subject: Comment Letter - Wetland and Riparian Area Protection Plan

Dear M. Her:

Thank you for the opportunity to comment on your proposed wetland and riparian area protection policy. After reviewing your report titled "Informational Document, Public Scoping Meeting for Proposed Wetland and Riparian Area Protection Policy" (Informational Document), we believe that you have selected an appropriate range of alternatives for your policy analysis. We would like to share some information that could make your final regulations more effective.

The Corps of Engineers shares in the goal of the State Water Resources Control Board (SWRCB) of improving clarity and consistency of the regulations. Clear and consistent regulations supported by sound science allows our regulatory programs to become more effective in protecting the aquatic environment. In light of recent judicial decisions, the State of California has a great role in protection of aquatic resources not regulated by the Corps of Engineers and thus represents a process complementary to federal regulations. We would like to provide some general comments on specific proposals and elaborate on Corps regulations the SWRCB propose to adopt. Because three of the alternatives rely heavily on the Corps of Engineers Section 404 regulations, we want to emphasize particular aspects of our regulations that may not be clear to many state regulators. Some of the nuances of our regulations may not be evident upon casual reading and certain sections have greater practical importance than the others.

Assessment Methodologies

We are pleased that the SWRCB is considering the use of an assessment methodology for two of the alternatives. The California Rapid Assessment Methodology (CRAM) would provide a useful, reproducible means to identify areas for avoidance and evaluation of compensatory mitigation success. We have discussed the methodology with Dr. Eric Stein, the principal developer, and we believe this is a useful tool in the absence of other means to assess many aquatic resources. Although Dr. Stein indicated that that CRAM was not developed for the

purpose of determining compensatory mitigation ratios, we believe that CRAM could provide information pertinent to future mitigation policies.

We urge the SWRCB to consider alternatives that would use comparable methodologies to determine beneficial uses for aquatic resources. One of the reasons functional assessment methodologies such as CRAM were developed was to avoid any subjectivity in characterizing a wetland or stream. Likewise we believe that a similar methodology is warranted for considering beneficial uses for Alternatives 2 through 4 to avoid subjectivity and to have a common basis for discussing the attributes of aquatic resources among all participants. Already we are seeing some disagreements on characterizing beneficial uses.

One of the areas of disagreement is on whether maximum beneficial uses can be attained for a particular aquatic resource. With the case of aquatic resource habitat, it is not possible for a wetland to attain maximum habitat attributes simultaneously for tri-colored blackbirds, arroyo toad, and Nuttall's woodpecker, because different wetland attributes are needed for each species and they are at least partially contradictory (e.g., forests for the woodpecker, sandy washes for arroyo toad, and herbaceous marsh for the blackbird). Likewise, in some cases, simultaneous attainment of some beneficial uses would be contradictory. Attainment of REC2 (Non-Contact Water Recreation) would conflict with BIOL (Preservation of Biological Habitats of Special Significance), WILD (Wildlife Habitat), and RARE (Rare, Threatened or Endangered Species). In other words, maximizing human use for recreation of certain aquatic resources may have adverse effects on sensitive flora and fauna due to noise, collection, trampling, and introduction of exotic species. It has been documented that human recreational use through biking and hiking diminishes habitat values (Miller and Hobbs, 2000).

General Comments on the Guidelines

As you noted in your Informational Document, central to the application of Section 404 of the Clean Water Act are the 404(b)(1) Guidelines (the Guidelines) (40 CFR 230) and the February 6, 1990 Memorandum of Agreement (MOA) between the Department of the Army and the Environmental Protection Agency (EPA). However, there is more clarifying regulations and guidance that have not been explicitly mentioned in Alternatives 2-4 that influence the application of the Section 404(b)(1) Guidelines. These additional Guidelines section and documents provide more insight on how the Guidelines are applied in practice. These additional Guidelines sections and documents include:

- 1) definitions used in the Guidelines (Section 230.3);
- 2) adaptability of the Guidelines (Section 230.6);
- 3) the Preamble to the Guidelines; and
- 4) Regulatory Guidance Letter (RGL) 93-02 (Guidance on Flexibility of the 404(b)(1) Guidelines and Mitigation banking

We recommend the SWRCB fully review the definitions and the context of the Guidelines. Section 230.3 provides some clarifications on the term "practicability," which is important in applying the Guidelines. Practicability is defined as "available and capable of being done after

taking into consideration cost, existing technology, and logistics in light of overall project purposes.” Each term in this definition is further elaborated within the Preamble and in RGL 93-02 (both enclosed). Both documents should be fully reviewed to understand the intent and context of the Guidelines.

We recommend the SWRCB fully review the section on adaptability in the Guidelines and its Preamble discussing the adaptability and the appropriate level of documentation, and the RGL. Reviewing these sections and documents will allow SWRCB staff to understand the level of documentation needed and expected to analyze impacts. These documents would allow your regulatory staff to better appropriate the limited amount of your staff time to routine actions versus complex actions.

We provide further comments on SWRCB’s possible use of the Guidelines in the context of the three sequenced steps of avoidance, minimization, and compensation of impacts. Each of these steps should be evaluated in the context of the general comments above on definitions and adaptability/documentation.

Avoidance

This step in the Guidelines (Section 230.10(a)) allows the Corps to avoid important aquatic resource elements and is the focus of a lot of our strategies in protecting the aquatic environment. Many avoidance measures would be evaluated in the context of analysis of alternatives.

A key feature in the application of the Guidelines towards evaluation of alternatives rests on the adaptability of the Guidelines to different situations. Actions that have minor impacts to the aquatic environment would require different level of evaluation of alternatives. According to RGL 93-02, some of the factors in determining whether an impact is minor include whether the activity is located in an aquatic resource of limited function, the small size of the impact, the lack of secondary or cumulative impact, and the temporary nature of the impact. Activities that possess one or more of those characteristics would not have a need for providing an extensive documentation of alternatives to the proposed action. Conversely, for actions that have serious effects to the aquatic environment, a more extensive evaluation of alternatives should be pursued. In such cases, particularly if wetlands or other special aquatic sites are proposed to be impacted, the applicant needs to rebut the presumption that there other alternatives not impacting special aquatic sites are available and that those practicable alternatives are less environmentally damaging (Section 230.10(a)).

The Guidelines also have provisions for shortening permit processing times as explained in Section 230.80. This section outlines shortening of permit processing times through the use of advanced identification of disposal areas (ADIDs). ADIDs provides the public with advanced understanding of the areas with substantial resource issues (unsuitable disposal areas) and areas that lack resource sensitivity (suitable disposal areas). We believe that the SWRCB should fully investigate ways to implement efforts similar to ADIDs.

Alternatively, the SWRCB should consider becoming more involved with the Corps' Special Area Management Plans (SAMPs). The Corps has undertaken similar efforts to shorten permit processing times while strengthening permit review through the implementation of SAMPs. The Corps is conducting SAMPs in Riverside, San Diego, and Sacramento Counties. SAMPs are similar to ADIDs in that they identify aquatic areas suitable and not suitable for disposal of fill materials. SAMPs go further by establishing a permitting mechanism as well as developing options for compensatory mitigation.

The Corps believes the SAMPs or ADIDs have the potential to reduce impacts to important aquatic resource areas through pro-active avoidance of key aquatic resources. Since the publication of the Guidelines in 1980, much has been written in peer-reviewed journals regarding the influence of adjacent and surrounding landscapes on aquatic resource integrity and function. Understanding landscape ecology is an essential tool in developing effective SAMPs and ADIDs, and we encourage the SWRCB to apply those findings in developing more detailed policy elements of Alternative 2-4. For example, within the past decade, some researchers showed the adverse effects of impervious cover exceeding a specified threshold resulting in highly altered hydrology (Booth and Jackson, 1997; Booth et al., 2002), sediment dynamics (Chin and Gregory, 2001; Paul and Meyer, 2001), and aquatic chemistry (Johnson et al., 1997; Paul and Meyer, 2001; Ourso and Frenzel, 2003). Aquatic resource areas adjacent to and/or downstream of non-natural areas experience a decrease in benthic macroinvertebrates (Richards et al., 1997; Milner and Oswood, 2000) and fish (Albanese and Matlack, 1999; Trombulak and Frissell, 2000; Wang et al., 2001) with consequent effects on larger animals that feed on them. In some situations, amphibians living near urban areas experience predation by non-native crayfish and exotic fish (Riley et al., 2005). Adjacent habitat and land uses could affect individual bird species with particular buffer needs (Fischer and Fischenich, 2000) while decreasing general bird species richness (Blair, 1996) and riparian bird species richness (Rottenborn, 1999). There is a growing realization that even with sizable buffers, adverse effects from urbanization of the larger landscape alone would make aquatic resources inhospitable to birds (Rodewald and Bakermans, 2006) and in-stream aquatic biota (Walsh et al., 2005). These studies should allow for a better understanding of the aquatic resource functions for specific aquatic resources in relationship to the landscape, allowing for prioritization of specific aquatic resources for avoidance.

Minimization

We believe that the SWRCB policies will provide great benefit in terms of minimizing effects from changing water quality and hydrology. The SWRCB should become familiarized with Subpart H (Sections 230.70-230.77) and examine ways the SWRCB can reinforce and supplement this section, particularly for issues particular to California and our unique climate and hydrology. Given that restoration may not be possible unless urban hydrology and pollution loads are controlled through catchment-based stormwater management (Roy et al., 2005; Walsh et al., 2005), effective policies by the SWRCB will aid all efforts to restore wetlands and riparian areas.

Compensatory Mitigation

The SWRCB should review the proposed mitigation rule, which was published in the Federal Register on March 28, 2006 and enclosed with this letter. These proposed rules would become part of the Guidelines, becoming Part J (Sections 230.91-230.99). These rules were developed based on the decades of experience by the EPA and the Corps in consideration of the scientific literature on evaluation of compensatory mitigation sites. These proposed regulations would expand the discussion of compensatory mitigation in Section II.C.3 of the MOA. Although the rule has not been finalized, the eventual final regulations should be incorporated in SWRCB policies in order to be fully consistent with the Guidelines. Alternatives 2-4 should incorporate these rules in expectation of a final regulations.

A key feature of the policy on compensatory mitigation is the emphasis on the watershed approach to compensatory mitigation. Section 230.93(c)(1) of the proposed regulations mandate that the Corps undertake a watershed approach:

The district engineer must use a watershed approach to establish compensatory mitigation requirements in [Corps] permits to the extent appropriate and practicable. Where an applicable watershed plan is available, the watershed approach should be based on the existing plan. Where no such plan is available, the watershed approach should be based on information provided by the project sponsor or available from other sources. The ultimate goal of a watershed approach is to maintain and improve the quality and quantity of aquatic resources within watersheds through strategic selection of compensatory mitigation sites.

Section 230.93(c)(2) of the proposed regulations emphasizes the importance of landscape position in identifying compensatory mitigation sites. Consideration of landscape position allows for maximization of particular functions with considerations given to trends in losses, habitat requirements of impacted species, and upland open space. Locational factors such as hydrology and surrounding land use are emphasized to insure impacted habitat functions and values are fully compensated. Although other functions such as water quality and flood control need to be considered, all functions should be considered in the context of the landscape. The watershed plan would provide inventories of restorable degraded habitat and long-term aquatic resource needs. In addition, mitigation banks may be used for compensatory mitigation. Many of the statements proposed within the regulations are consistent with the understanding and importance of landscapes provided in the referenced literature in the comment section on "Avoidance."

The watershed approach to compensatory mitigation allows for both on-site and off-site compensatory mitigation. There are explicit considerations for initial consideration of on-site compensatory mitigation (Section 230.93(a)(3)). However, if "these compensatory mitigation opportunities are not practicable, are unlikely to compensate for the permitted activity, or will be incompatible with the proposed project, and an alternative, practicable off-site and/or out-of-kind mitigation opportunity is identified that has a greater likelihood of offsetting the permitted activity," the Corps shall require that off-site compensatory mitigation (Section 230.93(a)(4)). With the understanding that some types of compensatory mitigation may be

adversely affected by on-site placement due to surrounding landscape that result in indirect stressors from pollution, altered hydrology, and noise, some on-site compensatory mitigation cannot successfully mitigate for habitat functions.

The Corps has experienced some difficulty with some Regional Water Quality Control Boards (RWQCBs) with respect to the compensatory mitigation requirements. Some RWQCBs have a rigid on-site compensatory mitigation policy that is not based on a watershed plan with the effect of habitat wetlands being placed in an urbanized context. These habitat islands cease to have any meaningful ecological function due to all the urban stressors and due to effective isolation from any connected habitat. Although those RWQCBs emphasize that re-locating compensatory mitigation off the project site would adversely affect those human individuals who enjoyed the REC-2 uses of the on-site wetlands, locating compensatory mitigation on-site would amount to creating a poor facsimile of a wetland with the same function as a wet ornamental horticultural feature. However, the Corps believes the net beneficial non-anthropomorphic uses of such on-site compensatory mitigation would be substantially less than if it was located at a suitable site based on proper landscape considerations. Also, the RWQCB emphasized that water quality functions need to be retained on-site, and the best solution would be wetland and riparian features on-site. The Corps respectfully disagrees because the ability of such a wetland to successfully treat the surrounding larger landscape is in doubt; the treatment capacity of a wetland is not infinite and is not a cure for all urban water quality impacts. The research by Walsh et al. (2005) and Roy et al. (2005) indicate that any effects of small patches of wetlands and riparian areas are drowned out by the chemical and hydrological inputs of the surrounding urbanized catchment.

In light of the inability to place functioning compensatory mitigation on-site if the urban context overwhelms the functional capacity of the compensatory mitigation site, we urge the SWRCB to adopt the proposed Part J of the Guidelines for Alternatives 2, 3, or 4. Since the Corps is mandated to adopt a watershed perspective, SWRCB not adopting Part J would result in policy disagreements between the federal and state regulatory agencies. In addition, the Corps is developing watershed plans in the form of SAMPs throughout several watersheds. These watershed plans have a mitigation site identification component that assesses the needs and restorability of most aquatic resources in the watershed with additional goals of re-establishing connectivity along key corridors. These watershed plans have been developed based on thorough consideration of the literature on wetland and riparian functions and the collective decades of experience by Corps staff. In light of the peer-reviewed science, several of which are referenced in this letter, we would like to develop a restoration strategy informed by landscape context to increase overall hydrologic, water quality, and habitat functions for the watershed as a whole. We would appreciate any support provided by the SWRCB in this goal.

We appreciate the opportunity to comment on this important piece of rule-making by the SWRCB. We believe our approach facilitates rigorous protection of aquatic function and values and a technically sound compensatory mitigation program. We also understand that there are issues that need to be addressed by the SWRCB in dealing with beneficial uses and water quality. The Corps is open for discussions on how we can modify our program to better address the concerns of the State of California. If you have any questions, please contact Dr. Jae

Chung of my staff at (213) 452-3292.

Sincerely,

David J. Castanon
Chief, Regulatory Division

Enclosure(s)

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Federal Register

Wednesday
December 24, 1980

Part IV

Environmental Protection Agency

Guidelines for Specification of Disposal
Sites for Dredged or Fill Material

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 230**

[WH-FRL 1647-7]

Guidelines for Specification of Disposal Sites for Dredged or Fill Material**AGENCY:** Environmental Protection Agency.**ACTION:** Rule.

SUMMARY: The 404(b)(1) Guidelines are the substantive criteria used in evaluating discharges of dredged or fill material under section 404 of the Clean Water Act. These Guidelines revise and clarify the September 5, 1975 Interim final Guidelines regarding discharge of dredged or fill material into waters of the United States in order to:

(1) Reflect the 1977 Amendments of Section 404 of the Clean Water Act (CWA);

(2) Correct inadequacies in the interim final Guidelines by filling gaps in explanations of unacceptable adverse impacts on aquatic ecosystems and by requiring documentation of compliance with the Guidelines; and

(3) Produce a final rulemaking document.

EFFECTIVE DATE: These Guidelines will apply to all 404 permit decisions made after March 23, 1981. In the case of civil works projects of the United States Army Corps of Engineers involving the discharge of dredged or fill material for which there is no permit application or permit as such, these Guidelines will apply to all projects on which construction or dredging contracts are issued, or on which dredging is initiated for Corps operations not performed under contract, after October 1, 1981. In the case of Federal construction projects meeting the criteria in section 404(r), these Guidelines will apply to all projects for which a final environmental impact statement is filed with EPA after April 1, 1981.

FOR FURTHER INFORMATION CONTACT: Joseph Krivak, Director, Criteria and Standards Division (WH-585), Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, telephone (202) 755-0100.

SUPPLEMENTARY INFORMATION:**Background**

The section 404 program for the evaluation of permits for the discharge of dredged or fill material was originally enacted as part of the Federal Water Pollution Control Amendments of 1972. The section authorized the Secretary of

the Army acting through the Chief of Engineers to issue permits specifying disposal sites in accordance with the section 404(b)(1) Guidelines. Section 404(b)(2) allowed the Secretary to issue permits otherwise prohibited by the Guidelines, based on consideration of the economics of anchorage and navigation. Section 404(c) authorized the Administrator of the Environmental Protection Agency to prohibit or withdraw the specification of a site, upon a determination that use of the site would have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas.

Under section 404(b)(1), the Guidelines are to be based on criteria comparable to those in section 403(c) of the Act, for the territorial seas, contiguous zone, and oceans. Unlike 403(c), 404 applies to all waters of the United States. Characteristics of waters of the United States vary greatly, both from region to region and within a region. There is a wide range of size, flow, substrate, water quality, and use. In addition, the materials to be discharged, the methods of discharge, and the activities associated with the discharge also vary widely. These and other variations make it unrealistic at this time to arrive at numerical criteria or standards for toxic or hazardous substances to be applied on a nationwide basis. The susceptibility of the aquatic ecosystem to degradation by purely physical placement of dredged or fill material further complicates the problem of arriving at nationwide standards. As a result, the Guidelines concentrate on specifying the tools to be used in evaluating and testing the impact of dredged or fill material discharges on waters of the United States rather than on simply listing numerical pass-fail points.

The first section 404(b)(1) Guidelines were promulgated by the Administrator in interim final form on September 5, 1975, after consultation with the Corps of Engineers. Since promulgation of the interim final Guidelines, the Act has been substantially amended. The Clean Water Act of 1977 established a procedure for transferring certain permitting authorities to the states, exempted certain discharges from any section 404 permit requirements, and gave the Corps enforcement authority. These amendments also increased the importance of the section 404(b)(1) Guidelines, since some of the exemptions are based on alternative ways of applying the Guidelines. These changes, plus the experience of EPA and

the Corps in working with the interim final Guidelines, have prompted a revision of the Guidelines. The proposed revision attempted to reorganize the Guidelines, to make it clearer what had to be considered in evaluating a discharge and what weight should be given to such considerations. The proposed revision also tightened up the requirements for the permitting authority's documentation of the application of the Guidelines.

After extensive consultation with the Corps, the proposed revisions were put out for public comment (44 FR 54222, September 18, 1979). EPA has reviewed, and, after additional consultation with the Corps, revised the proposal in light of these comments. This preamble addresses the significant comments received, explains the changes made in the regulation, and attempts to clear up some misunderstandings which were revealed by the comments. Response to Significant Comments

Regulation Versus Guideline

A number of commenters objected to the proposed Guidelines on the grounds that they were too "regulatory." These commenters argued that the term "guidelines" which appears in section 404(b)(1) requires a document with less binding effect than a regulation. EPA disagrees. The Clean Water Act does not use the word "guideline" to distinguish advisory information from regulatory requirements. Section 404(b)(2) clearly demonstrates that Congress contemplated that discharges could be "prohibited" by the Guidelines. Section 403 (which is a model for the 404(b)(1) Guidelines) also provides for "guidelines" which are clearly regulatory in nature. Consequently, we have not changed the regulation to make it simply advisory. Of course, as the regulation itself makes clear, a certain amount of flexibility is still intended. For example, while the ultimate conditions of compliance are "regulatory", the Guidelines allow some room for judgment in determining what must be done to arrive at a conclusion that those conditions have or have not been met. See, for example, § 230.6 and § 230.60, and introductory sentence in § 230.10.

Statutory Scheme and How the Guidelines Fit Into It

A number of commenters with objections appeared confused about EPA's role in the section 404 program. Some wondered why EPA was issuing Guidelines since EPA could stop an unacceptable discharge under section 404(c). Others were uncertain how the

Guidelines related to other section 404 regulations.

The Clean Water Act prohibits the discharge of dredged or fill material except in compliance with section 404. Section 404 sets up a procedure for issuing permits specifying discharge sites. Certain discharges (e.g. emergency repairs, certain farm and forest roads, and other discharges identified in sections 404(f) and (r)) are exempted from the permit requirements. The permitting authority (either the Corps of Engineers or an approved State program) approves discharges at particular sites through application of the section 404(b)(1) Guidelines, which are the substantive criteria for dredged and fill material discharges under the Clean Water Act. The Corps also conducts a Public Interest Review, which ensures that the discharge will comply with the applicable requirements of other statutes and be in the public interest. The Corps or the State, as the case may be, must provide an opportunity for a public hearing before making its decision whether to approve or deny. If the Corps concludes that the discharge does not comply with the Guidelines, it may still issue the permit under 404(b)(2) if it concludes that the economics of navigation and anchorage warrant. Section 404(b)(2) gives the Secretary a limited authority to issue permits prohibited by the Guidelines; it does not, as some commenters suggested, require the Guidelines to consider the economics of navigation and anchorage. Conversely, because of 404(b)(2), the fact that a discharge of dredged material does not comply with the Guidelines does not mean that it can never be permitted. The Act recognizes the concerns of ports in section 404(b)(2), not 404(b)(1). Many readers apparently misunderstood this point.

EPA's role under section 404 is several-fold. First, EPA has the responsibility for developing the 404(b)(1) Guidelines in conjunction with the Corps. Second, EPA reviews permit applications and gives its comments (if any) to the permitting authority. The Corps may issue a permit even if EPA comments adversely, after consultation takes place. In the case of state programs, the State director may not issue a permit over EPA's unresolved objection. Third, EPA has the responsibility for approving and overseeing State 404 programs. In addition, EPA has enforcement responsibilities under section 309. Finally, under either the Federal or State program, the Administrator may also prohibit the specification of a discharge

site, or restrict its use, by following the procedures set out in section 404(c), if he determines that discharge would have an unacceptable adverse effect on fish and shellfish areas (including spawning and breeding areas), municipal water supplies, wildlife or recreation areas. He may do so in advance of a planned discharge or while a permit application is being evaluated or even, in unusual circumstances, after issuance of a permit. (See preamble to 40 CFR Part 231, 44 FR 58076, October 9, 1979.) If the Administrator uses 404(c), he may block the issuance of a permit by the Corps or a State 404 program. Where the Administrator has exercised his section 404(c) authority to prohibit, withhold, or restrict the specification of a site for disposal, his action may not be overridden under section 404(b)(2). The fact that EPA has 404(c) authority does not lessen EPA's responsibility for developing the 404(b)(1) Guidelines for use by the permitting authority. Indeed, if the Guidelines are properly applied, EPA will rarely have to use its 404(c) veto.

The Clean Water Act provides for several uses of the Guidelines in addition to the individual permit application review process described above. For example, the Corps or an approved state may issue General permits for a category of similar activities where it determines, on the basis of the 404(b)(1) Guidelines, that the activities will cause only minimal adverse environmental effects both individually and cumulatively (Section 404(e) and (g)(1)). In addition, some of the exemptions from the permit requirements involve application of the Guidelines. Section 404(r) exempts discharges associated with Federal construction projects where, among other things, there is an Environmental Impact Statement which considers the 404(b)(1) Guidelines. Section 404(f)(1)(F) exempts discharges covered by best management practices (BMP's) approved under section 208(b)(4)(B) and (c), the approval of which is based in part on consistency with the 404(b)(1) Guidelines.

Several commenters asked for a statement on the applicability of the Guidelines to enforcement procedures. Under sections 309, 404(h)(1)(G), and 404(s), EPA, approved States, and the Corps all play a role in enforcing the section 404 permit requirements. Enforcement actions are appropriate when someone is discharging dredged or fill material without a required permit, or violates the terms and conditions of a permit. The Guidelines as such are generally irrelevant to a determination

of either kind of violation, although they may represent the basis for particular permit conditions which are violated. Under the Corps' procedural regulations, the Corps may accept an application for an after-the-fact permit, in lieu of immediately commencing an enforcement action. Such after-the-fact permits may be issued only if they comply with the 404(b)(1) Guidelines as well as other requirements set out in the Corps' regulations. Criteria and procedures for exercising the various enforcement options are outside the scope of the section 404(b)(1) Guidelines.

Some commenters suggested that we either include specific permit processing procedures or that we cross-reference regulations containing them. Such procedures are described in 33 CFR Part 320-327 (Corps' procedures) and in 40 CFR Part 122-124 (minimum State procedures). When specific State 404 programs are approved, their regulations should also be consulted.

How Future Changes in the Testing Provision Relate to Promulgation of This Final Rule

The September 18, 1979, proposal contained testing provisions which were essentially the same as those in the Interim Final regulations. The Preamble to that proposal explained that it was our intention to propose changes in the testing provisions, but that a proposal was not yet ready. Consequently, while we have been revising the rest of the Guidelines, we have also been working on a proposal for reorganizing and updating the testing provisions. Now that we have finalized the rest of the Guidelines, two options are available to us. First, we could delay issuing any final revisions to our 1979 proposal until we could propose a revised testing package, consider comments on it, and finalize the testing provisions. We could then put together the Guidelines and the revised testing section in one final regulation. The 1975 interim final Guidelines would apply in their entirety until then. Second, we could publish the final Guidelines (with the 1975 testing provisions) and simultaneously propose changes to the testing provision. It is our present belief that proposed changes to the testing provision would not affect the rest of the Guidelines, but the public would be allowed to comment on any inconsistencies it saw between the rest of the Guidelines and the testing proposal. Then, when the comments to the testing proposal had been considered, we would issue a new final regulation incorporating both the previously promulgated final Guidelines and the final revised testing provision.

We have selected the second option because this approach ensures that needed improvements to the Guidelines are made effective at the earliest possible date, it gives the public ample opportunity to comment on the revised testing section, and it maintains the 1975 testing requirements in effect during the interim which would be the case in any event.

Guideline Organization

Many readers objected to the length and complexity of the Guidelines. We have substantially reorganized the regulation to eliminate duplicative material and to provide a more logical sequence. These changes should make it easier for applicants to understand the criteria and for State and Corps permit evaluators and the Administrator to apply the criteria. Throughout the document, we have also made numerous minor language changes to improve the clarity of the regulations, often at the suggestion of commenters.

Following general introductory material and the actual compliance requirements, the regulations are now organized to more closely follow the steps the permitting authority will take in arriving at his ultimate decision on compliance with the Guidelines.

By reorganizing the Guidelines in this fashion, we were also able to identify and eliminate duplicative material. For example, the proposed Guidelines listed ways to minimize impacts in many separate sections. Since there was substantial overlap in the specific methods suggested in those sections, we consolidated them into new Subpart H. Other individual sections have been made more concise. In addition, we have decreased the number of *comments*, moving them to the Preamble or making them part of the Regulation, as appropriate.

General Permits

When issued after proper consideration of the Guidelines, General permits are a useful tool in protecting the environment with a minimum of red tape and delay. We expect that their use will expand in the future.

Some commenters were confused about how General permits work. A General permit will be issued only after the permitting authority has applied the Guidelines to the class of discharges to be covered by the permit. Therefore, there is no need to repeat the process at the time a particular discharge covered by the permit takes place. Of course, under both the Corps' regulations and EPA's regulations for State programs, the permitting authority may suspend General permits or require individual

permits where environmental concerns make it appropriate. For example, cumulative impacts may turn out to be more serious than predicted. This regulation is not intended to establish the *procedures* for issuance of General permits. That is the responsibility of the permitting authority in accordance with the requirements of section 404.

Burden of Proof

A number of commenters objected to the presumption in the regulations in general, and in proposed § 230.1(c) in particular, that dredged or fill material should not be discharged unless it is demonstrated that the planned discharge meets the Guidelines. These commenters thought that it was unfair and inconsistent with section 404(c) of the Act.

We disagree with these objections, and have retained the presumption against discharge and the existing burden of proof. However, the section has been rewritten for clarity.

The Clean Water Act itself declares a national goal to be the elimination of the discharge of pollutants into the navigable waters (section 101(a)(1)). This goal is implemented by section 301, which states that such discharges are unlawful except in compliance with, *inter alia*, section 404. Section 404 in turn authorizes the permitting authority to allow discharges of dredged or fill material if they comply with the 404(b)(1) Guidelines. The statutory scheme makes it clear that discharges shall not take place until they have been found acceptable. Of course, this finding may be made through the General permit process and the statutory exemptions as well as through individual permits.

The commenters who argued that section 404(c) shifts the usual burden to the EPA Administrator misunderstood the relationship between section 404(c) and the permitting process. The Administrator's authority to prohibit or restrict a site under section 404(c) operates independently of the Secretary of the Army's permitting authority in 404(a). The Administrator may use 404(c) whether or not a permit application is pending. Conversely, the Secretary may deny a permit on the basis of the Guidelines, whether or not EPA initiates a 404(c) proceeding. If the Administrator uses his 404(c) "veto," then he does have the burden to justify his action, but that burden does not come into play until he begins a 404(c) proceeding (See 40 CFR Part 231).

Toxic Pollutants

Many commenters objected strenuously to the presumptions in the

Guidelines that toxic pollutants on the section 307(a)(1) list are present in the aquatic environment unless demonstrated not to be, and that such pollutants are biologically available unless demonstrated otherwise. These commenters argued that rebutting these presumptions could involve individual testing for dozens of substances every time a discharge is proposed, imposing an onerous task.

The proposed regulation attempted to avoid unnecessary testing by providing that when the § 230.22(b) "reason to believe" process indicated that toxics were not present in the discharge material, no testing was required. On the other hand, contaminants other than toxics required testing if that same "reason to believe" process indicated they might be present in the discharge material. This is in fact a distinction without a difference. In practical application, toxic and non-toxic contaminants are treated the same; if either may be there, tests are performed to get the information for the determinations; if it is believed they are not present, no testing is done. Because the additional presumption for toxics did not actually serve a purpose, and because it was a possible source of confusion, we have eliminated it, and now treat "toxics" and other contaminants alike, under the "reason to believe test" (§ 230.60). We have provided in § 230.3 a definition of "contaminants" which encompasses the 307(a)(1) toxics.

Water Dependency

One of the provisions in the proposed Guidelines which received the most objections was the so-called "water dependency test" in the proposed § 230.10(e). This provision imposed an additional requirement on fills in wetlands associated with non-water dependent activities, namely a showing that the activity was "necessary." Many environmentalists objected to what they saw as a substantial weakening of the 1975 version of the water dependency test. Industry and development-oriented groups, on the other hand, objected to the "necessary" requirement because it was too subjective, and to the provision as a whole to the extent that it seemed designed to block discharges in wetlands automatically.

We have reviewed the water dependency test, its original purpose, and its relationship to the rest of the Guidelines in light of these comments. The original purpose, which many commenters commended, was to recognize the special values of wetlands and to avoid their unnecessary destruction, particularly when

practicable alternatives were available in non-aquatic areas to achieve the basic purposes of the proposal. We still support this goal, but we have changed the water-dependency test to better achieve it.

First, we agree with the comments from both sides that the "necessary" test imposed by the 1979 proposal is not likely to be workable in practice, and may spawn more disputes than it settles. However, if the "necessary" test is simply deleted, section 230.10(e) does not provide any special recognition of protection for wetlands, and thus defeats its purpose. Furthermore, even if the "necessary" test were retained, the provision applies only to discharges of fill material, not discharges of dredged material, a distinction which lessens the effectiveness of the provision. Thus, we have decided, in accordance with the comments, that the proposal is unsatisfactory.

We have therefore decided to focus on, round out, and strengthen the approach of the so-called "water dependency" provision of the 1975 regulation. We have rejected the suggestion that we simply go back to the 1975 language, in part because it would not mesh easily with the revised general provisions of the Guidelines. Instead, our revised "water dependency" provision creates a presumption that there are practicable alternatives to "non-water dependent" discharges proposed for special aquatic sites. "Non-water dependent" discharges are those associated with activities which do not require access or proximity to or siting within the special aquatic site to fulfill their basic purpose. An example is a fill to create a restaurant site, since restaurants do not need to be in wetlands to fulfill their basic purpose of feeding people. In the case of such activities, it is reasonable to assume there will generally be a practicable site available upland or in a less vulnerable part of the aquatic ecosystem. The mere fact that an alternative may cost somewhat more does not necessarily mean it is not practicable (see § 230.10(a)(2) and discussion below). Because the applicant may rebut the presumption through a clear showing in a given case, no unreasonable hardship should be worked. At the same time, this presumption should have the effect of forcing a hard look at the feasibility of using environmentally preferable sites. This presumption responds to the overwhelming number of commenters who urged us to retain a water dependency test to discourage avoidable discharges in wetlands.

In addition, the 1975 provision effectively created a special, irrefutable presumption that alternatives to wetlands were always less damaging to the aquatic ecosystem. Because our experience and the comments indicate that this is not always the case, and because there could be substantial impacts on other elements of the environment and only minor impacts on wetlands, we have chosen instead to impose an explicit, but rebuttable, presumption that alternatives to discharges in special aquatic sites are less damaging to the aquatic ecosystem and are environmentally preferable. Of course, the general requirement that impacts on the aquatic ecosystem not be unacceptable also applies. The legislative history of the Clean Water Act, Executive Order 11990, and a large body of scientific information support this presumption.

Apart from the fact that it may be rebutted, this second presumption reincorporates the key elements of the 1975 provision. Moreover, it strengthens it because the recognition of the special environmental role of wetlands now applies to all discharges in special aquatic sites, whether of dredged or fill material, and whether or not water dependent. At the same time, this presumption, like the first one described above, retains sufficient flexibility to reflect the circumstances of unusual cases.

Consistent with the general burden of proof under these Guidelines, where an applicant proposes to discharge in a special aquatic site it is his responsibility to persuade the permitting authority that both of these presumptions have clearly been rebutted in order to pass the alternatives portion of these Guidelines.

Therefore, we believe that the new § 230.10(a)(3), which replaces proposed 230.10(e), will give special protection to wetlands and other special aquatic sites regardless of material discharged, allay industry's concerns about the "necessary" test, recognize the possibility of impacts on air and upland systems, and acknowledge the variability among aquatic sites and discharge activities.

Alternatives

Some commenters objected at length to the scope of alternatives which the Guidelines require to be considered, and to the requirement that a permit be denied unless the least harmful such alternative were selected. Others wrote to urge us to retain these requirements. In our judgment, a number of the objections were based on a

misunderstanding of what the proposed alternatives analysis required. Therefore, we have decided to clarify the regulation, but have not changed its basic thrust.

Section 403(c) clearly requires that alternatives be considered, and provides the basic legal basis for our requirement. While the statutory provision leaves the Agency some discretion to decide *how* alternatives are to be considered, we believe that the policies and goals of the Act, as well as the other authorities cited in the Preamble to the proposed Guidelines, would be best served by the approach we have taken.

First, we emphasize that the only alternatives which must be considered are *practicable* alternatives. What is practicable depends on cost, technical, and logistic factors. We have changed the word "economic" to "cost". Our intent is to consider those alternatives which are reasonable in terms of the overall scope/cost of the proposed project. The term economic might be construed to include consideration of the applicant's financial standing, or investment, or market share, a cumbersome inquiry which is not necessarily material to the objectives of the Guidelines. We consider it implicit that, to be practicable, an alternative must be capable of achieving the basic purpose of the proposed activity. Nonetheless, we have made this explicit to allay widespread concern. Both "internal" and "external" alternatives, as described in the September 18, 1979 Preamble, must satisfy the practicable test. In order for an "external" alternative to be practicable, it must be reasonably available or obtainable. However, the mere fact of ownership or lack thereof, does not necessarily determine reasonable availability. Some readers were apparently confused by the Preamble to the Proposed Regulation, which referred to the fact the National Environmental Policy Act (NEPA) may require consideration of courses of action beyond the authority of the agency involved. We did not mean to suggest that the Guidelines were necessarily imposing such a requirement on private individuals but, rather, to suggest that what we were requiring was well within the alternatives analyses required by NEPA.

Second, once these practicable alternatives have been identified in this fashion, the permitting authority should consider whether any of them, including land disposal options, are less environmentally harmful than the proposed discharge project. Of course, where there is no significant or easily identifiable difference in impact, the

alternative need not be considered to have "less adverse" impact.

Several commenters questioned the legal basis for requiring the permitting authority to select the least damaging alternative. (The use of the term "select" may have been misleading. Strictly speaking, the permitting authority does not select anything; he denies the permit if the guidelines requirements have not been complied with.) As mentioned above, the statute leaves to EPA's discretion the exact implementation of the alternative requirement in section 403 of the Act. In large part, the approach taken by these regulations is very similar to that taken by the recent section 403(c) regulations (45 FR 65942, October 3, 1980). There is one difference: the Guidelines always prohibit discharges where there is a practicable, less damaging alternative, while the section 403(c) regulations only apply this prohibition in some cases. This difference reflects the wide range of water systems subject to 404 and the extreme sensitivity of many of them to physical destruction. These waters form a priceless mosaic. Thus, if destruction of an area of waters of the United States may reasonably be avoided, it should be avoided. Of course, where a category of 404 discharges is so minimal in its effects that it has been placed under a general permit, there is no need to perform a case-by-case alternatives analysis. This feature corresponds, in a sense, to the category of discharges under section 403 for which no alternatives analysis is required.

Third, some commenters were concerned that the alternative consideration was unduly focused on water quality, and that a better alternative from a water quality standpoint might be less desirable from, say, an air quality point of view. This concern overlooks the explicit provision that the existence of an alternative which is less damaging to the aquatic ecosystem does not disqualify a discharge if that alternative has other significant adverse environmental consequences. This last provision gives the permitting authority an opportunity to take into account evidence of damage to other ecosystems in deciding whether there is a "better" alternative.

Fourth, a number of commenters were concerned that the Guidelines ensure coordination with planning processes under the Coastal Zone Management Act, § 208 of the CWA, and other programs. We agree that where an adequate alternatives analysis has already been developed, it would be wasteful not to incorporate it into the 404 process. New § 230.10(a)(5) makes it

clear that where alternatives have been reviewed under another process, the permitting authority shall consider such analysis. However, if the prior analysis is not as complete as the alternatives analysis required under the Guidelines, he must supplement it as needed to determine whether the proposed discharge complies with the Guidelines. Section 230.10(a)(4) recognizes that the range of alternatives considered in NEPA documents will be sufficient for section 404 purposes, where the Corps is the permitting authority. (However, a greater level of detail may be needed in particular cases to be adequate for the 404(b)(1) Guidelines analysis.) This distinction between the Corps and State permitting authorities is based on the fact that it is the Corps' policy, in carrying out its own NEPA responsibilities, to supplement (or require a supplement to) a lead agency's environmental assessment or impact statement where such document does not contain sufficient information. State permitting agencies, on the other hand, are not subject to NEPA in this manner.

We have moved proposed § 230.10(a)(1) (iii), concerning "other particular volumes and concentrations of pollutants at other specific rates", from the list of alternatives in § 230.10 to Subpart H, Minimizing Adverse Effects, because it more properly belongs there.

Definitions (§ 230.3)

A number of the terms defined in § 230.3 are also defined in the Corps' regulations at 33 CFR 323.2, applicable to the Corps' regulatory program. The Corps has recently proposed some revisions to those regulations and expects to receive comments on the definitions. To ensure coordination of these two sets of regulations, we have decided to reserve the definitions of "discharge of dredged material," "discharge of fill material," "dredged material," and "fill material," which otherwise would have appeared at § 230.3 (f), (g), (j), and (l).

Although the term "waters of the United States" also appears in the Corps' regulations, we have retained a definition here, in view of the importance of this key jurisdictional term and the numerous comments received. The definition and the comments are explained below.

Until new definitions are published, directly or by reference to the Corps' revised regulations, users of these Guidelines should refer to the definitions in 33 CFR 323.2 (except in the case of state 404 programs, to which the definitions in 40 CFR § 122.3 apply.)

Waters of the United States: A number of commenters objected to the

definition of "waters of the United States" because it was allegedly outside the scope of the Clean Water Act or of the Constitution or because it was not identical to the Corps' definition. We have retained the proposed definition with a few minor changes for clarity for several reasons. First, a number of courts have held that this basic definition of waters of the United States reasonably implements section 502(7) of the Clean Water Act, and that it is constitutional (e.g., *United States v. Byrd*, 609 F.2d 1204, 7th Cir. 1979; *Leslie Salt Company v. Froehlike*, 578 F.2d 742, 9th Cir. 1978). Second, we agree that it is preferable to have a uniform definition for waters of the United States, and for all regulations and programs under the CWA. We have decided to use the wording in the recent Consolidated Permit Regulations, 45 Fed. Reg. 33290, May 19, 1980, as the standard.*

Some commenters suggested that the reference in the definition to waters from which fish are taken to be sold in interstate commerce be expanded to include areas where such fish spawn. While we have not made this change because we wish to maintain consistency with the wording of the Consolidated Permit regulations, we do not intend to suggest that a spawning area may not have significance for commerce. The portion of the definition at issue lists major examples, not *all* the ways which commerce may be involved.

Some reviewers questioned the statement in proposed § 230.72(c) (now § 230.11(h)) that activities on fast land created by a discharge of dredged or fill material are considered to be in waters of the United States for purposes of these Guidelines. The proposed language was misleading and we have changed it to more accurately reflect our intent. When a portion of the Waters of the United States has been legally converted to fast land by a discharge of dredged or fill material, it does not remain waters of the United States subject to section 301(a). The discharge may be legal because it was authorized by a permit or because it was made before there was a permit requirement. In the case of an illegal discharge, the fast land may remain subject to the jurisdiction of the Act until the government determines not to seek restoration. However, in authorizing a

* The Consolidated Permit Regulations exclude certain waste treatment systems from waters of the United States. The exact terms of this exclusion are undergoing technical revisions and are expected to change shortly. For this reason, these Guidelines as published do not contain the exclusion as originally worded in the Consolidated Permit Regulations. When published, the corrected exclusion will apply to the Guidelines as well as the Consolidated Permit Regulations.

discharge which will create fast lands, the permitting authority should consider, in addition to the direct effects of the fill itself, the effects on the aquatic environment of any reasonably foreseeable activities to be conducted on that fast land.

Section 230.54 (proposed 230.41) deals with impacts on parks, national and historical monuments, national sea shores, wilderness areas, research sites, and similar preserves. Some readers were concerned that we intended the Guidelines to apply to activities in such preserves whether or not the activities took place in waters of the United States. We intended, and we think the context makes it clear, that the Guidelines apply only to the specification of discharge sites in the waters of the United States, as defined in § 230.3. We have included this section because the fact that a water of the United States may be located in one of these preserves is significant in evaluating the impacts of a discharge into that water.

Wetlands: Many wetlands are waters of the United States under the Clean Water Act. Wetlands are also the subject of Federal Executive Order No. 11990, and various Federal and State laws and regulations. A number of these other programs and laws have developed slightly different wetlands definitions, in part to accommodate or emphasize specialized needs. Some of these definitions include, not only wetlands as these Guidelines define them, but also mud flats and vegetated and unvegetated shallows. Under the Guidelines some of these other areas are grouped with wetlands as "Special Aquatic Sites" (Subpart E) and as such their values are given special recognition. (See discussion of Water Dependency above.) We agree with the comment that the National Inventory of Wetlands prepared by the U.S. Fish and Wildlife Service, while not necessarily exactly coinciding with the scope of waters of the United States under the Clean Water Act or wetlands under these regulations, may help avoid construction in wetlands, and be a useful long-term planning tool.

Various commenters objected to the definition of wetlands in the Guidelines as too broad or too vague. This proposed definition has been upheld by the courts as reasonable and consistent with the Clean Water Act, and is being retained in the final regulation. However, we do agree that vegetative guides and other background material may be helpful in applying the definition in the field. EPA and the Corps are pledged to work on joint research to aid

in jurisdictional determinations. As we develop such materials, we will make them available to the public.

Other commenters suggested that we expand the list of examples in the second sentence of the wetland definition. While their suggested additions could legally be added, we have not done so. The list is one of examples only, and does not serve as a limitation on the basic definition. We are reluctant to start expanding the list, since there are many kinds of wetlands which could be included, and the list could become very unwieldy.

In addition, we wish to avoid the confusion which could result from listing as examples, not only areas which generally fit the wetland definitions, but also areas which may or not meet the definition depending on the particular circumstances of a given site. In sum, if an area meets the definition, it is a wetland for purposes of the Clean Water Act, whether or not it falls into one of the listed examples. Of course, more often than not, it will be one of the listed examples.

A few commenters cited alleged inconsistencies between the definition of wetlands in § 230.3 and § 230.42. While we see no inconsistency, we have shortened the latter section as part of our effort to eliminate unnecessary comments.

Unvegetated Shallows: One of the special aquatic areas listed in the proposal was "unvegetated shallows" (§ 230.44). Since special aquatic areas are subject to the presumptions in § 230.10(a)(3), it is important that they be clearly defined so that the permitting authority may readily know when to apply the presumptions. We were unable to develop, at this time, a definition for unvegetated shallows which was both easy to apply and not too inclusive or exclusive. Therefore, we have decided the wiser course is to delete unvegetated shallows from the special aquatic area classification. Of course, as waters of the United States, they are still subject to the rest of the Guidelines.

"Fill Material": We are temporarily reserving § 230.3(1). Both the proposed Guidelines and the proposed Consolidated Permit Regulations defined fill material as material discharged for the primary purpose of replacing an aquatic area with dryland or of changing the bottom elevation of a water body, reserving to the NPDES program discharges with the same effect which are primarily for the purpose of disposing of waste. Both proposals solicited comments on this distinction, referred to as the primary purpose test. On May 19, 1980, acting under a court-

imposed deadline, EPA issued final Consolidated Permit Regulations while the 404(b)(1) Guidelines rulemaking was still pending. These Consolidated Permit Regulations contained a new definition of fill material which eliminated the primary purpose test and included as fill material all pollutants which have the effect of fill, that is, which replace part of the waters of the United States with dryland or which change the bottom elevation of a water body for any purpose. This new definition is similar to the one used before 1977.

During the section 404(b)(1) rulemaking, the Corps has raised certain questions about the implementation of such a definition. Because of the importance of making the Final Guidelines available without further delay, and because of our desire to cooperate with the Corps in resolving their concerns about fill material, we have decided to temporarily reserve § 230.3(1) pending further discussion. This action does not affect the effectiveness of the Consolidated Permit Regulations. Consequently, there is a discrepancy between those regulations and the Corps' regulations, which still contain the old definition.

Therefore, to avoid any uncertainty from this situation, EPA wishes to make clear its enforcement policy for unpermitted discharges of solid waste. EPA has authority under section 309 of the CWA to issue administrative orders against violations of section 301. Unpermitted discharges of solid waste into waters of the United States violate section 301.

Under the present circumstances, EPA plans to issue solid waste administrative orders with two basic elements. First, the orders will require the violator to apply to the Corps of Engineers for a section 404 permit within a specified period of time. (The Corps has agreed to accept these applications and to hold them until it resolves its position on the definition of fill material.)

Second, the order will constrain further discharges by the violator. In extreme cases, an order may require that discharges cease immediately. However, because we recognize that there will be a lapse of time before decisions are made on this kind of permit application, these orders may expressly allow unpermitted discharges to continue subject to specific conditions set forth by EPA in the order. These conditions will be designed to avoid further environmental damage.

Of course, these orders will not influence the ultimate issuance or non-issuance of a permit or determine the conditions that may be specified in such a permit. Nor will such orders limit the

Administrator's authority under section 309(b) or the right of a citizen to bring suit against a violator under section 505 of the CWA.

Permitting Authority: We have used the new term "permitting authority," instead of "District Engineer," throughout these regulations, in recognition of the fact that under the 1977 amendments approved States may also issue permits.

Coastal Zone Management Plans

Several commenters were concerned about the relationship between section 404 and approved Coastal Zone Management (CZM) plans. Some expressed concern that the Guidelines might authorize a discharge prohibited by a CZM plan; others objected to the fact that the Guidelines might prohibit a discharge which was consistent with a CZM plan.

Under section 307(b) of the CZM Act, no Federal permits may be issued until the applicant furnishes a certification that the discharge is consistent with an approved CZM plan, if there is one, and the State concurs in the certification or waives review. Section 325.2(b)(2) of the Corps' regulation, which applies to all Federal 404 permits, implements this requirement for section 404. Because the Corps' regulations adequately address the CZM consistency requirement, we have not duplicated § 325.2(b)(2) in the Guidelines. Where a State issues State 404 permits, it may of course require consistency with its CZM plan under State law.

The second concern, that the 404 Guidelines might be stricter than a CZM plan, points out a possible problem with CZM plans, not with the Guidelines. Under 307(f) of CZMA, all CZM plans must provide for compliance with applicable requirements of the Clean Water Act. The Guidelines are one such requirement. Of course, to the extent that a CZM plan is general and area-wide, it may be impossible to include in its development the same project-specific consideration of impacts and alternatives required under the Guidelines. Nonetheless, it cannot authorize or mandate a discharge of dredged or fill material which fails to comply with the requirements of these Guidelines. Often CZM plans contain a requirement that all activities conducted under it meet the permit requirements of the Clean Water Act. In such a case, there could of course be no conflict between the CZM plan and the requirements of the Guidelines.

We agree with commenters who urge that delay and duplication of effort be avoided by consolidating alternatives studies required under different statutes,

including the Coastal Zone Management Act. However, since some planning processes do not deal with specific projects, their consideration of alternatives may not be sufficient for the Guidelines. Where another alternative analysis is less complete than that contemplated under section 404, it may not be used to weaken the requirements of the Guidelines.

Advanced Identification of Dredged or Fill Material Disposal Sites

A large number of commenters objected to the way proposed § 230.70, new Subpart I, had been changed from the 1975 regulations. A few objected to the section itself. Most of the comments also revealed a misunderstanding about the significance of identifying an area. First, the fact that an area has been identified as unsuitable for a potential discharge site does not mean that someone cannot apply for and obtain a permit to discharge there as long as the Guidelines and other applicable requirements are satisfied.* Conversely, the fact that an area has been identified as a potential site does not mean that a permit is unnecessary or that one will automatically be forthcoming. The intent of this section was to aid applicants by giving advance notice that they would have a relatively easy or difficult time qualifying for a permit to use particular areas. Such advance notice should facilitate applicant planning and shorten permit processing time.

Most of the objectors focused on EPA's "abandonment" of its "authority" to identify sites. While that "authority" is perhaps less "authoritative" than the commenters suggested (see above), we agree that there is no reason to decrease EPA's role in the process. Therefore, we have changed new § 230.80(a) to read:

"Consistent with these Guidelines, EPA and the permitting authority on their own initiative or at the request of any other party, and after consultation with any affected State that is not the permitting authority, may identify sites which will be considered as:"

We have also deleted proposed § 230.70(a)(3), because it did not seem to accomplish much. Consideration of the point at which cumulative and secondary impacts become unacceptable and warrant emergency action will generally be more appropriate in a permit-by-permit context. Once that point has been so determined, of course, the area can be identified as "unsuitable" under the new § 230.80(a)(2).

* EPA may foreclose the use of a site by exercising its authority under section 404(c). The advance identification referred to in this section is not a section 404(c) prohibition.

Executive Order 12044

A number of commenters took the position that Executive Order 12044 requires EPA to prepare a "regulatory analysis" in connection with these regulations. EPA disagrees. These regulations are not, strictly speaking, new regulations. They do not impose new standards or requirements, but rather substantially clarify and reorganize the existing interim final regulations.

Under EPA's criteria implementing Executive Order 12044, EPA will prepare a Regulatory Analysis for any regulation which imposes *additional* annual costs totalling \$100 million or which will result in a total *additional* cost of production of any major product or service which exceeds 5% of its selling price. While many commenters, particularly members of the American Association of Port Authorities (AAPA), requested a regulatory analysis and claimed that the regulations were too burdensome, none of them explained how that burden was an *additional* one attributable to this revision. A close comparison of the new regulation and the explicit and implicit requirements in the interim final Guidelines reveals that there has been very little real change in the criteria by which discharges are to be judged or in the tests that must be conducted; therefore, we stand by our original determination that a regulatory analysis is not required.

Perhaps the most significant area in which the regulations are more explicit and arguably stricter is in the consideration of alternatives. However, even the 1975 regulations required the permitting authority to consider "the availability of alternate sites and methods of disposal that are less damaging to the environment," and to avoid activities which would have significant adverse effects. We do not think that the revised Guidelines' more explicit direction to avoid adverse effects that could be prevented through selection of a clearly less damaging site or method is a change imposing a substantial new burden on the regulated public.

Because the revised regulations are more explicit than the interim final regulations in some respects, it is possible that permit reviewers will do a more thorough job evaluating proposed discharges. This may result in somewhat more carefully drawn permit conditions. However, even if, for purposes of argument, the possible cost of complying with these conditions is considered an *additional* cost, there is no reason to believe that it alone will be anywhere near \$100 million annually.

We also believe that it is appropriate to recognize the regulatory benefits from these more carefully drafted final regulations. Because they are much clearer about what should be considered and documented, we expect there will be fewer delays in reviewing permits, and that initial decisions to issue permits are less likely to be appealed to higher authority. These benefits are expected to offset any potential cost increase.

Some commenters suggested that documentation requirements would generate an additional cost of operations. The Corps' procedural regulations at 33 CFR 325.8 and 325.11 already require extensive documentation for individual permits being denied or being referred to higher authority for resolution of a conflict between agencies.

Economic Factors

A number of commenters asked EPA to include consideration of economic factors in the Guidelines. We believe that the regulation already recognizes economic factors to the extent contemplated by the statute. First, the Guidelines explicitly include the concept of "practicability" in connection with both alternatives and steps to minimize impacts. If an alleged alternative is unreasonably expensive to the applicant, the alternative is not "practicable." In addition, the Guidelines also consider economics indirectly in that they are structured to avoid the expense of unnecessary testing through the "reason-to-believe-test." Second, the statute expressly provides that the economics of anchorage and navigation may be considered, but only after application of the section 404(b)(1) Guidelines. (See section 404(b)(2).)

Borrow Sites

A number of highway departments objected because they felt the Guidelines would require them to identify specific borrow sites at the time of application, which would disrupt their normal contracting process and increase cost. These objections were based on a misunderstanding of the Guidelines' requirements. Under those Guidelines, the actual borrow sites need not be identified, if the application and the permit specify that the discharge material must come from clean upland sites which are removed from sources of contamination and otherwise satisfy the reason-to-believe test. A condition that the material come from such a site would enable the permitting authority to make his determinations and find compliance with the conditions of

§ 230.10, without requiring highway departments to specify in advance the specific borrow sites to be used.

Consultation With Fish and Wildlife Agencies

One commenter wanted us to put in a statement that the Fish and Wildlife Coordination Act requires consultation with fish and wildlife agencies. We have not added new language because (1) the Fish and Wildlife Act only applies to Federal permitting agencies and not to State permitting agencies, and (2) the Corps' regulations already provide for such consultation by the only Federal 404 permitting agency. However, we agree with the commenter that Federal and State fish and wildlife agencies may often provide valuable assistance in evaluating the impacts of discharges of dredged or fill material.

The Importance of Appropriate Documentation

Specific documentation is important to ensure an understanding of the basis for each decision to allow, condition, or prohibit a discharge through application of the Guidelines. Documentation of information is required for: (1) facts and data gathered in the evaluation and testing of the extraction site, the material to be discharged, and the disposal site; (2) factual determinations regarding changes that can be expected at the disposal site if the discharge is made as proposed; and (3) findings regarding compliance with § 230.10 conditions. This documentation provides a record of actions taken that can be evaluated for adequacy and accuracy and ensures consideration of all important impacts in the evaluation of a proposed discharge of dredged or fill material.

The specific information documented under (1) and (2) above in any given case depends on the level of investigation necessary to provide for a reasonable understanding of the impact on the aquatic ecosystems. We anticipate that a number of individual and most General permit applications will be for routine, minor activities with little potential for significant adverse environmental impacts. In such cases, the permitting authority will not have to require extensive testing or analysis to make his findings of compliance. The level of documentation should reflect the significance and complexity of the proposed discharge activity.

Factual Determinations

Proposed section 230.20, "Factual Determinations" (now § 230.11) has been significantly reorganized in response to comments. First, we have

changed (e) to reflect our elimination of the artificial distinction between the section 307(a)(1) toxics and other contaminants. Second, we have eliminated proposed (f) (Biological Availability), since the necessary information will be provided by (d) and new (e). Proposed (f) was intended to reflect the presumption that toxics were present and biologically available. We have modified proposed (g), now (f), to focus on the size of the disposal site and the size and shape of the mixing zone. The specific requirement to document the site has been deleted; where such information is relevant, it will automatically be considered in making the other determinations. We have also deleted proposed (h) (Special Determinations) since it did not provide any useful information which would not already be considered in making the other factual determinations.

Finally, in response to many comments, we have moved the provisions on cumulative and secondary impact to the Factual Determination section to give them further emphasis. We agree that such impacts are an important consideration in evaluating the acceptability of a discharge site.

Water Quality Standards

One commenter was concerned that the reference § 230.10(b) to water quality standards and criteria "approved or promulgated under section 303" might encourage permit authorities to ignore other water quality requirements. Under section 303, all State water quality standards are to be submitted to EPA for approval. If the submitted standards are incomplete or insufficiently stringent, EPA may promulgate standards to replace or supplant the State standards. Disapproved standards remain in effect until replaced. Therefore, to refer to "EPA approved or promulgated standards" is to ignore those State standards which have been neither approved nor replaced. We have therefore changed the wording of this requirement as follows: " * * * any applicable State water quality standard." We have also dropped the reference to "criteria", to be consistent with the Agency's general position that water quality criteria are not regulatory.

Other Requirements for Discharge

Section 230.10(c) provides that discharges are not permitted if they will have "significantly" adverse effects on various aquatic resources. In this context, "significant" and "significantly" mean more than "trivial", that is, significant in a conceptual rather than a statistical sense. Not all effects which

are statistically significant in the laboratory are significantly adverse in the field.

Section 320.10(d) uses the term "minimize" to indicate that all reasonable reduction in impacts be obtained. As indicated by the "appropriate and practicable" provision, steps which would be unreasonably costly or would be infeasible or which would accomplish only inconsequential reductions in impact need not be taken.

Habitat Development and Restoration of Water Bodies

Habitat development and restoration involve changes in open water and wetlands that minimize adverse effects of proposed changes or that neutralize or reverse the effects of past changes on the ecosystem. Development may produce a new or modified ecological state by displacement of some or all of the existing environmental characteristics. Restoration has the potential to return degraded environments to their former ecological state.

Habitat development and restoration can contribute to the maintenance and enhancement of a viable aquatic ecosystem at the discharge site. From an environmental point of view, a project involving the discharge of dredged and fill material should be designed and managed to emulate a natural ecosystem. Research, demonstration projects, and full scale implementation have been done in many categories of development and restoration. The U.S. Fish and Wildlife Service has programs to develop and restore habitat. The U.S. Army Engineer Waterways Experiment Station has published guidelines for using dredged material to develop wetland habitat, for establishing marsh vegetation, and for building islands that attract colonies of nesting birds. The EPA has a Clean Lakes program which supplies funds to States and localities to enhance or restore degraded lakes. This may involve dredging nutrient-laden sediments from a lake and ensuring that nutrient inflows to the lake are controlled. Restoration and habitat development techniques can be used to minimize adverse impacts and compensate for destroyed habitat. Restoration and habitat development may also provide secondary benefits such as improved opportunities for outdoor recreation and positive use for dredged materials.

The development and restoration of viable habitats in water bodies requires planning and construction practices that integrate the new or improved habitat into the existing environment. Planning requires a model or standard, the

achievement of which is attempted by manipulating design and implementation of the activity. This model or standard should be based on characteristics of a natural ecosystem in the vicinity of a proposed activity. Such use of a natural ecosystem ensures that the developed or restored area, once established, will be nourished and maintained physically, chemically and biologically by natural processes. Some examples of natural ecosystems include, but are not limited to, the following: salt marsh, cattail marsh, turtle grass bed, small island, etc.

Habitat development and restoration, by definition, should have environmental enhancement and maintenance as their initial purpose. Human uses may benefit but they are not the primary purpose. Where such projects are not founded on the objectives of maintaining ecosystem function and integrity, some values may be favored at the expense of others. The ecosystem affected must be considered in order to achieve the desired result of development and restoration. In the final analysis, selection of the ecosystem to be emulated is of critical importance and a loss of value can occur if the wrong model or an incomplete model is selected. Of equal importance is the planning and management of habitat development and restoration on a case-by-case basis.

Specific measures to minimize impacts on the aquatic ecosystem by enhancement and restoration projects include but are not limited to:

(1) Selecting the nearest similar natural ecosystem as the model in the implementation of the activity.

Obviously degraded or significantly less productive habitats may be considered prime candidates for habitat restoration. One viable habitat, however, should not be sacrificed in an attempt to create another, i.e., a productive vegetated shallow water area should not be destroyed in an attempt to create a wetland in its place.

(2) Using development and restoration techniques that have been demonstrated to be effective in circumstances similar to those under consideration wherever possible.

(3) Where development and restoration techniques proposed for use have not yet advanced to the pilot demonstration or implementation stage, initiate their use on a small scale to allow corrective action if unanticipated adverse impacts occur.

(4) Where Federal funds are spent to clean up waters of the U.S. through dredging, scientifically defensible levels of pollutant concentration in the return discharge should be agreed upon with the funding authority in addition to any

applicable water quality standards in order to maintain the desired improved water quality.

(5) When a significant ecological change in the aquatic environment is proposed by the discharge of dredged or fill material, the permitting authority should consider the ecosystem that will be lost as well as the environmental benefits of the new system.

Dated: December 12, 1980.

Douglas M. Costle,

Administrator, Environmental Protection Agency.

Part 230 is revised to read as follows:

PART 230—SECTION 404(b)(1) GUIDELINES FOR SPECIFICATION OR DISPOSAL SITES FOR DREDGED OR FILL MATERIAL

Subpart A—General

Sec.	
230.1	Purpose and policy.
230.2	Applicability.
230.3	Definitions.
230.4	Organization.
230.5	General procedures to be followed.
230.6	Adaptability.
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Subpart B—Compliance With the Guidelines

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Subpart C—Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem

230.20	Substrate.
230.21	Suspended particulates/turbidity.
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230.24	Normal water fluctuations.
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Subpart D—Potential Impacts on Biological Characteristics of the Aquatic Ecosystem

230.30	Threatened and endangered species.
230.31	Fish, crustaceans, mollusks, and other aquatic organisms in the food web.
230.32	Other wildlife.

Subpart E—Potential Impacts on Special Aquatic Sites

230.40	Sanctuaries and refuges.
230.41	Wetlands.
230.42	Mud flats.
230.43	Vegetated shallows.
230.44	Coral reefs.
230.45	Riffle and pool complexes.

Subpart F—Potential Effects on Human Use Characteristics

230.50	Municipal and private water supplies.
230.51	Recreational and commercial fisheries.
230.52	Water-related recreation.
230.53	Aesthetics.

Sec.

230.54 Parks, national and historic monuments, national seashores, wilderness areas, research sites and similar preserves.

Subpart G—Evaluation and Testing

230.60 General evaluation of dredged or fill material.

230.61 Chemical, biological, and physical evaluation and testing.

Subpart H—Actions to Minimize Adverse Effects

230.70 Actions concerning the location of the discharge.

230.71 Actions concerning the material to be discharged.

230.72 Actions controlling the material after discharge.

230.73 Actions affecting the method of dispersion.

230.74 Actions related to technology.

230.75 Actions affecting plant and animal populations.

230.76 Actions affecting human use.

230.77 Other actions.

Subpart I—Planning To Shorten Permit Processing Time

230.80 Advanced identification of disposal areas.

Authority: This regulation is issued under authority of Sections 404(b) and 501(a) of the Clean Water Act of 1977, 33 U.S.C. § 1344(b) and § 1361(a).

Subpart A—General

§ 23.1 Purpose and policy.

(a) The purpose of these Guidelines is to restore and maintain the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material.

(b) Congress has expressed a number of policies in the Clean Water Act. These Guidelines are intended to be consistent with and to implement those policies.

(c) Fundamental to these Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.

(d) From a national perspective, the degradation or destruction of special aquatic sites, such as filling operations in wetlands, is considered to be among the most severe environmental impacts covered by these Guidelines. The guiding principle should be that degradation or destruction of special sites may represent an irreversible loss of valuable aquatic resources.

§ 230.2 Applicability.

(a) These Guidelines have been developed by the Administrator of the Environmental Protection Agency in conjunction with the Secretary of the Army acting through the Chief of Engineers under section 404(b)(1) of the Clean Water Act (33 U.S.C. 1344). The Guidelines are applicable to the specification of disposal sites for discharges of dredged or fill material into waters of the United States. Sites may be specified through:

(1) The regulatory program of the U.S. Army Corps of Engineers under sections 404(a) and (e) of the Act (see 33 CFR 320, 323 and 325);

(2) The civil works program of the U.S. Army Corps of Engineers (see 33 CFR 209.145 and section 150 of Pub. L. 94-587, Water Resources Development Act of 1976);

(3) Permit programs of States approved by the Administrator of the Environmental Protection Agency in accordance with sections 404(g) and (h) of the Act (see 40 CFR 122, 123 and 124);

(4) Statewide dredged or fill material regulatory programs with best management practices approved under section 208(b)(4)(B) and (C) of the Act (see 40 CFR 35.1560);

(5) Federal construction projects which meet criteria specified in section 404(r) of the Act.

(b) These Guidelines will be applied in the review of proposed discharges of dredged or fill material into navigable waters which lie inside the baseline from which the territorial sea is measured, and the discharge of fill material into the territorial sea, pursuant to the procedures referred to in paragraphs (a)(1) and (a)(2) above. The discharge of dredged material into the territorial sea is governed by the Marine Protection, Research, and Sanctuaries Act of 1972, Pub. L. 92-532, and regulations and criteria issued pursuant thereto (40 CFR Part 220-228).

(c) Guidance on interpreting and implementing these Guidelines may be prepared jointly by EPA and the Corps at the national or regional level from time to time. No modifications to the basic application, meaning, or intent of these Guidelines will be made without rulemaking by the Administrator under the Administrative Procedure Act (5 U.S.C. 551 *et seq.*).

§ 230.3 Definitions.

For purposes of this Part, the following terms shall have the meanings indicated:

(a) The term "Act" means the Clean Water Act (also known as the Federal Water Pollution Control Act or FWPCA)

Pub. L. 92-500, as amended by Pub. L. 95-217, 33 U.S.C. 1251, *et seq.*

(b) The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes, and the like are "adjacent wetlands."

(c) The terms "aquatic environment" and "aquatic ecosystem" mean waters of the United States, including wetlands, that serve as habitat for interrelated and interacting communities and populations of plants and animals.

(d) The term "carrier of contaminant" means dredged or fill material that contains contaminants.

(e) The term "contaminant" means a chemical or biological substance in a form that can be incorporated into, onto or be ingested by and that harms aquatic organisms, consumers of aquatic organisms, or users of the aquatic environment, and includes but is not limited to the substances on the 307(a)(1) list of toxic pollutants promulgated on January 31, 1978 (43 FR 4109).

(f) [Reserved]

(g) [Reserved]

(h) The term "discharge point" means the point within the disposal site at which the dredged or fill material is released.

(i) The term "disposal site" means that portion of the "waters of the United States" where specific disposal activities are permitted and consist of a bottom surface area and any overlying volume of water. In the case of wetlands on which surface water is not present, the disposal site consists of the wetland surface area.

(j) [Reserved]

(k) The term "extraction site" means the place from which the dredged or fill material proposed for discharge is to be removed.

(l) [Reserved]

(m) The term "mixing zone" means a limited volume of water serving as a zone of initial dilution in the immediate vicinity of a discharge point where receiving water quality may not meet quality standards or other requirements otherwise applicable to the receiving water. The mixing zone should be considered as a place where wastes and water mix and not as a place where effluents are treated.

(n) The term "permitting authority" means the District Engineer of the U.S. Army Corps of Engineers or such other individual as may be designated by the Secretary of the Army to issue or deny permits under section 404 of the Act; or the State Director of a permit program

approved by EPA under § 404(g) and § 404(h) or his delegated representative.

(o) The term "pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials not covered by the Atomic Energy Act, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. The legislative history of the Act reflects that "radioactive materials" as included within the definition of "pollutant" in section 502 of the Act means only radioactive materials which are not encompassed in the definition of source, byproduct, or special nuclear materials as defined by the Atomic Energy Act of 1954, as amended, and regulated under the Atomic Energy Act. Examples of radioactive materials not covered by the Atomic Energy Act and, therefore, included within the term "pollutant", are radium and accelerator produced isotopes. See *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1 (1976).

(p) The term "pollution" means the man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of an aquatic ecosystem.

(q) The term "practicable" means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

(q-1) "Special aquatic sites" means those sites identified in Subpart E. They are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. (See 230.10(a)(3))

(r) The term "territorial sea" means the belt of the sea measured from the baseline as determined in accordance with the Convention on the Territorial Sea and the Contiguous Zone and extending seaward a distance of three miles.

(s) The term "waters of the united States" means:

(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters;

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are used or could be used for industrial purposes by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under this definition.

(5) Tributaries of waters identified in paragraphs (1)-(4) of this section;

(6) The territorial sea;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s) (1)-(6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR § 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

(t) The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

§ 230.4 Organization.

The Guidelines are divided into eight subparts. Subpart A presents those provisions of general applicability, such as purpose and definitions. Subpart B establishes the four conditions which must be satisfied in order to make a finding that a proposed discharge of dredged or fill material complies with the Guidelines. Section 230.11 of Subpart B, sets forth factual determinations which are to be considered in determining whether or not a proposed discharge satisfies the Subpart B conditions of compliance. Subpart C describes the physical and chemical components of a site and provides guidance as to how proposed discharges of dredged or fill material may affect these components. Subparts D-F detail the special characteristics of particular aquatic ecosystems in terms of their values, and the possible loss of these

values due to discharges of dredged or fill material. Subpart G prescribes a number of physical, chemical, and biological evaluations and testing procedures to be used in reaching the required factual determinations. Subpart H details the means to prevent or minimize adverse effects. Subpart I contains advanced identification of disposal areas.

§ 230.5 General procedures to be followed.

In evaluating whether a particular discharge site may be specified, the permitting authority should use these Guidelines in the following sequence:

(a) In order to obtain an overview of the principal regulatory provisions of the Guidelines, review the restrictions on discharge in § 230.10(a)-(d), the measures to minimize adverse impact of Subpart H, and the required factual determinations of § 230.11.

(b) Determine if a General permit (§ 230.7) is applicable; if so, the applicant needs merely to comply with its terms, and no further action by the permitting authority is necessary. Special conditions for evaluation of proposed General permits are contained in § 230.7. If the discharge is not covered by a General permit:

(c) Examine practicable alternatives to the proposed discharge, that is, not discharging into the waters of the U.S. or discharging into an alternative aquatic site with potentially less damaging consequences (§ 230.10(a)).

(d) Delineate the candidate disposal site consistent with the criteria and evaluations of § 230.11(f).

(e) Evaluate the various physical and chemical components which characterize the non-living environment of the candidate site, the substrate and the water including its dynamic characteristics (Subpart C).

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

(g) Review Factual Determinations in § 230.11 to determine whether the information in the project file is sufficient to provide the documentation required by § 230.11 or to perform the pre-testing evaluation described in § 230.60, or other information is necessary.

(h) Evaluate the material to be discharged to determine the possibility of chemical contamination or physical incompatibility of the material to be discharged (§ 230.60).

(i) If there is a reasonable probability of chemical contamination, conduct the appropriate tests according to the section on Evaluation and Testing (§ 230.61).

(j) Identify appropriate and practicable changes to the project plan to minimize the environmental impact of the discharge, based upon the specialized methods of minimization of impacts in Subpart H.

(k) Make and document Factual Determinations in § 230.11.

(l) Make and document Findings of Compliance (§ 230.12) by comparing Factual Determinations with the requirements for discharge of § 230.10. This outline of the steps to follow in using the Guidelines is simplified for purposes of illustration. The actual process followed may be iterative, with the results of one step leading to a reexamination of previous steps. The permitting authority must address all of the relevant provisions of the Guidelines in reaching a Finding of Compliance in an individual case.

§ 230.6 Adaptability.

(a) The manner in which these Guidelines are used depends on the physical, biological, and chemical nature of the proposed extraction site, the material to be discharged, and the candidate disposal site, including any other important components of the ecosystem being evaluated. Documentation to demonstrate knowledge about the extraction site, materials to be extracted, and the candidate disposal site is an essential component of guideline application. These Guidelines allow evaluation and documentation for a variety of activities, ranging from those with large, complex impacts on the aquatic environment to those for which the impact is likely to be innocuous. It is unlikely that the Guidelines will apply in their entirety to any one activity, no matter how complex. It is anticipated that substantial numbers of permit applications will be for minor, routine activities that have little, if any, potential for significant degradation of the aquatic environment. It generally is not intended or expected that extensive testing, evaluation or analysis will be needed to make findings of compliance in such routine cases. Where the conditions for General permits are met, and where numerous applications for similar activities are likely, the use of General permits will eliminate repetitive evaluation and documentation for individual discharges.

(b) The Guidelines user, including the agency or agencies responsible for

implementing the Guidelines, must recognize the different levels of effort that should be associated with varying degrees of impact and require or prepare commensurate documentation. The level of documentation should reflect the significance and complexity of the discharge activity.

(c) An essential part of the evaluation process involves making determinations as to the relevance of any portion(s) of the Guidelines and conducting further evaluation only as needed. However, where portions of the Guidelines review procedure are "short form" evaluations, there still must be sufficient information (including consideration of both individual and cumulative impacts) to support the decision of whether to specify the site for disposal of dredged or fill material and to support the decision to curtail or abbreviate the evaluation process. The presumption against the discharge in § 230.1 applies to this decision-making.

(d) In the case of activities covered by General permits or 208(b)(4)(B) and (C) Best Management Practices, the analysis and documentation required by the Guidelines will be performed at the time of General permit issuance or 208(b)(4)(B) and (C) Best Management Practices promulgation and will not be repeated when activities are conducted under a General permit or 208(b)(4)(B) and (C) Best Management Practices control. These Guidelines do not require reporting or formal written communication at the time individual activities are initiated under a General permit or 208(b)(4)(B) and (C) Best Management Practices. However, a particular General permit may require appropriate reporting.

§ 230.7 General permits.

(a) *Conditions for the issuance of General permits.* A General permit for a category of activities involving the discharge of dredged or fill material complies with the Guidelines if it meets the applicable restrictions on the discharge in § 230.10 and if the permitting authority determines that:

- (1) The activities in such category are similar in nature and similar in their impact upon water quality and the aquatic environment;
- (2) The activities in such category will have only minimal adverse effects when performed separately; and
- (3) The activities in such category will have only minimal cumulative adverse effects on water quality and the aquatic environment.

(b) *Evaluation process.* To reach the determinations required in paragraph (a) of this section, the permitting authority

shall set forth in writing an evaluation of the potential individual and cumulative impacts of the category of activities to be regulated under the General permit. While some of the information necessary for this evaluation can be obtained from potential permittees and others through the proposal of General permits for public review, the evaluation must be completed before any General permit is issued, and the results must be published with the final permit.

(1) This evaluation shall be based upon consideration of the prohibitions listed in § 230.10(b) and the factors listed in § 230.10(c), and shall include documented information supporting each factual determination in § 230.11 of the Guidelines (consideration of alternatives in § 230.10(u) are not directly applicable to General permits);

(2) The evaluation shall include a precise description of the activities to be permitted under the General permit, explaining why they are sufficiently similar in nature and in environmental impact to warrant regulation under a single General permit based on Subparts C-F of the Guidelines. Allowable differences between activities which will be regulated under the same General permit shall be specified. Activities otherwise similar in nature may differ in environmental impact due to their location in or near ecologically sensitive areas, areas with unique chemical or physical characteristics, areas containing concentrations of toxic substances, or areas regulated for specific human uses or by specific land or water management plans (e.g., areas regulated under an approved Coastal Zone Management Plan). If there are specific geographic areas within the purview of a proposed General permit (called a draft General permit under a State 404 program), which are more appropriately regulated by individual permit due to the considerations cited in this paragraph, they shall be clearly delineated in the evaluation and excluded from the permit. In addition, the permitting authority may require an individual permit for any proposed activity under a General permit where the nature or location of the activity makes an individual permit more appropriate.

(3) To predict cumulative effects, the evaluation shall include the number of individual discharge activities likely to be regulated under a General permit until its expiration, including repetitions of individual discharge activities at a single location.

Subpart B—Compliance With the Guidelines

§ 230.10 Restrictions on discharge.

Note.—Because other laws may apply to particular discharges and because the Corps of Engineers or State 404 agency may have additional procedural and substantive requirements, a discharge complying with the requirement of these Guidelines will not automatically receive a permit.

Although all requirements in § 230.10 must be met, the compliance evaluation procedures will vary to reflect the seriousness of the potential for adverse impacts on the aquatic ecosystems posed by specific dredged or fill material discharge activities.

(a) Except as provided under § 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.

(1) For the purpose of this requirement, practicable alternatives include, but are not limited to:

(i) Activities which do not involve a discharge of dredged or fill material into the waters of the United States or ocean waters;

(ii) Discharges of dredged or fill material at other locations in waters of the United States or ocean waters;

(2) An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered.

(3) Where the activity associated with a discharge which is proposed for a special aquatic site (as defined in Subpart E) does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not "water dependent"), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.

(4) For actions subject to NEPA, where the Corps of Engineers is the permitting agency, the analysis of alternatives required for NEPA environmental documents, including supplemental Corps NEPA documents, will in most cases provide the information for the evaluation of alternatives under these Guidelines. On occasion, these NEPA documents may address a broader range of alternatives than required to be considered under this paragraph or may not have considered the alternatives in sufficient detail to respond to the requirements of these Guidelines. In the latter case, it may be necessary to supplement these NEPA documents with this additional information.

(5) To the extent that practicable alternatives have been identified and evaluated under a Coastal Zone Management program, a § 208 program, or other planning process, such evaluation shall be considered by the permitting authority as part of the consideration of alternatives under the Guidelines. Where such evaluation is less complete than that contemplated under this subsection, it must be supplemented accordingly.

(b) No discharge of dredged or fill material shall be permitted if it:

(1) Causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable State water quality standard;

(2) Violates any applicable toxic effluent standard or prohibition under section 307 of the Act;

(3) Jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act of 1973, as amended, or results in likelihood of the destruction or adverse modification of a habitat which is determined by the Secretary of Interior or Commerce, as appropriate, to be a critical habitat under the Endangered Species Act of 1973, as amended. If an exemption has been granted by the Endangered Species Committee, the terms of such exemption shall apply in lieu of this subparagraph;

(4) Violates any requirement imposed by the Secretary of Commerce to protect any marine sanctuary designated under Title III of the Marine Protection, Research, and Sanctuaries Act of 1972.

(c) Except as provided under § 404(b)(2), no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States. Findings of significant degradation related to the proposed discharge shall be based upon appropriate factual determinations, evaluations, and tests required by

Subparts B and C, after consideration of Subparts C-F, with special emphasis on the persistence and permanence of the effects outlined in those subparts. Under these Guidelines, effects contributing to significant degradation considered individually or collectively, include:

(1) Significantly adverse effects of the discharge of pollutants on human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites.

(2) Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes;

(3) Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or

(4) Significantly adverse effects of discharge of pollutants on recreational, aesthetic, and economic values.

(d) Except as provided under § 404(b)(2), no discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem. Subpart H identifies such possible steps.

§ 230.11 Factual determinations.

The permitting authority shall determine in writing the potential short-term or long-term effects of a proposed discharge of dredged or fill material on the physical, chemical, and biological components of the aquatic environment in light of Subparts C-F. Such factual determinations shall be used in § 230.12 in making findings of compliance or non-compliance with the restrictions on discharge in § 230.10. The evaluation and testing procedures described in § 230.60 and § 230.61 of Subpart G shall be used as necessary to make, and shall be described in, such determination. The determinations of effects of each proposed discharge shall include the following:

(a) *Physical substrate determinations.* Determine the nature and degree of effect that the proposed discharge will have, individually and cumulatively, on the characteristics of the substrate at the proposed disposal site. Consideration shall be given to the similarity in particle size, shape, and degree of compaction of the material

proposed for discharge and the material constituting the substrate at the disposal site, and any potential changes in substrate elevation and bottom contours, including changes outside of the disposal site which may occur as a result of erosion, slumpage, or other movement of the discharged material. The duration and physical extent of substrate changes shall also be considered. The possible loss of environmental values (§ 230.20) and actions to minimize impact (Subpart H) shall also be considered in making these determinations. Potential changes in substrate elevation and bottom contours shall be predicted on the basis of the proposed method, volume, location, and rate of discharge, as well as on the individual and combined effects of current patterns, water circulation, wind and wave action, and other physical factors that may affect the movement of the discharged material.

(b) *Water circulation, fluctuation, and salinity determinations.* Determine the nature and degree of effect that the proposed discharge will have individually and cumulatively on water, current patterns, circulation including downstream flows, and normal water fluctuation. Consideration shall be given to water chemistry, salinity, clarity, color, odor, taste, dissolved gas levels, temperature, nutrients, and eutrophication plus other appropriate characteristics. Consideration shall also be given to the potential diversion or obstruction of flow, alterations of bottom contours, or other significant changes in the hydrologic regime. Additional consideration of the possible loss of environmental values (§ 230.23-.25) and actions to minimize impacts (Subpart H), shall be used in making these determinations. Potential significant effects on the current patterns, water circulation, normal water fluctuation and salinity shall be evaluated on the basis of the proposed method, volume, location, and rate of discharge.

(c) *Suspended particulate/turbidity determinations.* Determine the nature and degree of effect that the proposed discharge will have, individually and cumulatively, in terms of potential changes in the kinds and concentrations of suspended particulate/turbidity in the vicinity of the disposal site. Consideration shall be given to the grain size of the material proposed for discharge, the shape and size of the plume of suspended particulates, the duration of the discharge and resulting plume and whether or not the potential changes will cause violations of applicable water quality standards.

Consideration should also be given to the possible loss of environmental values (§ 230.21) and to actions for minimizing impacts (Subpart H). Consideration shall include the proposed method, volume, location, and rate of discharge, as well as the individual and combined effects of current patterns, water circulation and fluctuations, wind and wave action, and other physical factors on the movement of suspended particulates.

(d) *Contaminant determinations.* Determine the degree to which the material proposed for discharge will introduce, relocate, or increase contaminants. This determination shall consider the material to be discharged, the aquatic environment at the proposed disposal site, and the availability of contaminants.

(e) *Aquatic ecosystem and organism determinations.* Determine the nature and degree of effect that the proposed discharge will have, both individually and cumulatively, on the structure and function of the aquatic ecosystem and organisms. Consideration shall be given to the effect at the proposed disposal site of potential changes in substrate characteristics and elevation, water or substrate chemistry, nutrients, currents, circulation, fluctuation, and salinity, on the recolonization and existence of indigenous aquatic organisms or communities. Possible loss of environmental values (§ 230.31), and actions to minimize impacts (Subpart H) shall be examined. Tests as described in § 230.61 (Evaluation and Testing), may be required to provide information on the effect of the discharge material on communities or populations of organisms expected to be exposed to it.

(f) *Proposed disposal site determinations.* (1) Each disposal site shall be specified through the application of these Guidelines. The mixing zone shall be confined to the smallest practicable zone within each specified disposal site that is consistent with the type of dispersion determined to be appropriate by the application of these Guidelines. In a few special cases under unique environmental conditions, where there is adequate justification to show that widespread dispersion by natural means will result in no significantly adverse environmental effects, the discharged material may be intended to be spread naturally in a very thin layer over a large area of the substrate rather than be contained within the disposal site.

(2) The permitting authority and the Regional Administrator shall consider the following factors in determining the acceptability of a proposed mixing zone:

(i) Depth of water at the disposal site;

(ii) Current velocity, direction, and variability at the disposal site;

(iii) Degree of turbulence;

(iv) Stratification attributable to causes such as obstructions, salinity or density profiles at the disposal site;

(v) Discharge vessel speed and direction, if appropriate;

(vi) Rate of discharge;

(vii) Ambient concentration of constituents of interest;

(viii) Dredged material characteristics, particularly concentrations of constituents, amount of material, type of material (sand, silt, clay, etc.) and settling velocities;

(ix) Number of discharge actions per unit of time;

(x) Other factors of the disposal site that affect the rates and patterns of mixing.

(g) *Determination of cumulative effects on the aquatic ecosystem.* (1) Cumulative impacts are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems.

(2) Cumulative effects attributable to the discharge of dredged or fill material in waters of the United States should be predicted to the extent reasonable and practical. The permitting authority shall collect information and solicit information from other sources about the cumulative impacts on the aquatic ecosystem. This information shall be documented and considered during the decision-making process concerning the evaluation of individual permit applications, the issuance of a General permit, and monitoring and enforcement of existing permits.

(h) *Determination of secondary effects on the aquatic ecosystem.* (1) Secondary effects 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. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final section 404 action is taken by permitting authorities.

(2) Some examples of secondary effects on an aquatic ecosystem are fluctuating water levels in an impoundment and downstream associated with the operation of a dam, septic tank leaching and surface runoff

from residential or commercial developments on fill, and leachate and runoff from a sanitary landfill located in waters of the U.S. Activities to be conducted on fast land created by the discharge of dredged or fill material in waters of the United States may have secondary impacts within those waters which should be considered in evaluating the impact of creating those fast lands.

§ 230.12 Findings of compliance or non-compliance with the restrictions on discharge.

(a) On the basis of these Guidelines (Subparts C through G) the proposed disposal sites for the discharge of dredged or fill material must be:

(1) Specified as complying with the requirements of these Guidelines; or

(2) Specified as complying with the requirements of these Guidelines with the inclusion of appropriate and practicable discharge conditions (see Subpart H) to minimize pollution or adverse effects to the affected aquatic ecosystems; or

(3) Specified as failing to comply with the requirements of these Guidelines where:

(i) There is a practicable alternative to the proposed discharge that would have less adverse effect on the aquatic ecosystem, so long as such alternative does not have other significant adverse environmental consequences; or

(ii) The proposed discharge will result in significant degradation of the aquatic ecosystem under § 230.10(b) or (c); or

(iii) The proposed discharge does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem; or

(iv) There does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with these Guidelines.

(b) Findings under this section shall be set forth in writing by the permitting authority for each proposed discharge and made available to the permit applicant. These findings shall include the factual determinations required by § 230.11, and a brief explanation of any adaptation of these Guidelines to the activity under consideration. In the case of a General permit, such findings shall be prepared at the time of issuance of that permit rather than for each subsequent discharge under the authority of that permit.

Subpart C—Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem

Note.—The effects described in this subpart should be considered in making the

factual determinations and the findings of compliance or non-compliance in Subpart B.

§ 230.20 Substrate.

(a) The substrate of the aquatic ecosystem underlies open waters of the United States and constitutes the surface of wetlands. It consists of organic and inorganic solid materials and includes water and other liquids or gases that fill the spaces between solid particles.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can result in varying degrees of change in the complex physical, chemical, and biological characteristics of the substrate. Discharges which alter substrate elevation or contours can result in changes in water circulation, depth, current pattern, water fluctuation and water temperature. Discharges may adversely affect bottom-dwelling organisms at the site by smothering immobile forms or forcing mobile forms to migrate. Benthic forms present prior to a discharge are unlikely to recolonize on the discharged material if it is very dissimilar from that of the discharge site. Erosion, slumping, or lateral displacement of surrounding bottom of such deposits can adversely affect areas of the substrate outside the perimeters of the disposal site by changing or destroying habitat. The bulk and composition of the discharged material and the location, method, and timing of discharges may all influence the degree of impact on the substrate.

§ 230.21 Suspended particulates/turbidity.

(a) Suspended particulates in the aquatic ecosystem consist of fine-grained mineral particles, usually smaller than silt, and organic particles. Suspended particulates may enter water bodies as a result of land runoff, flooding, vegetative and planktonic breakdown, resuspension of bottom sediments, and man's activities including dredging and filling. Particulates may remain suspended in the water column for variable periods of time as a result of such factors as agitation of the water mass, particulate specific gravity, particle shape, and physical and chemical properties of particle surfaces.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can result in greatly elevated levels of suspended particulates in the water column for varying lengths of time. These new levels may reduce light penetration and lower the rate of photosynthesis and the primary productivity of an aquatic area if they

last long enough. Sight-dependent species may suffer reduced feeding ability leading to limited growth and lowered resistance to disease if high levels of suspended particulates persist. The biological and the chemical content of the suspended material may react with the dissolved oxygen in the water, which can result in oxygen depletion. Toxic metals and organics, pathogens, and viruses absorbed or adsorbed to fine-grained particulates in the material may become biologically available to organisms either in the water column or on the substrate. Significant increases in suspended particulate levels create turbid plumes which are highly visible and aesthetically displeasing. The extent and persistence of these adverse impacts caused by discharges depend upon the relative increase in suspended particulates above the amount occurring naturally, the duration of the higher levels, the current patterns, water level, and fluctuations present when such discharges occur, the volume, rate, and duration of the discharge, particulate deposition, and the seasonal timing of the discharge.

§ 230.22 Water.

(a) Water is the part of the aquatic ecosystem in which organic and inorganic constituents are dissolved and suspended. It constitutes part of the liquid phase and is contained by the substrate. Water forms part of a dynamic aquatic life-supporting system. Water clarity, nutrients and chemical content, physical and biological content, dissolved gas levels, pH, and temperature contribute to its life-sustaining capabilities.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can change the chemistry and the physical characteristics of the receiving water at a disposal site through the introduction of chemical constituents in suspended or dissolved form. Changes in the clarity, color, odor, and taste of water and the addition of contaminants can reduce or eliminate the suitability of water bodies for populations of aquatic organisms, and for human consumption, recreation, and aesthetics. The introduction of nutrients or organic material to the water column as a result of the discharge can lead to a high biochemical oxygen demand (BOD), which in turn can lead to reduced dissolved oxygen, thereby potentially affecting the survival of many aquatic organisms. Increases in nutrients can favor one group of organisms such as algae to the detriment of other more desirable types such as submerged aquatic vegetation, potentially causing adverse health

effects, objectionable tastes and odors, and other problems.

§ 230.23 Current patterns and water circulation.

(a) Current patterns and water circulation are the physical movements of water in the aquatic ecosystem. Currents and circulation respond to natural forces as modified by basin shape and cover, physical and chemical characteristics of water strata and masses, and energy dissipating factors.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can modify current patterns and water circulation by obstructing flow, changing the direction or velocity of water flow, changing the direction or velocity of water flow and circulation, or otherwise changing the dimensions of a water body. As a result, adverse changes can occur in: location, structure, and dynamics of aquatic communities; shoreline and substrate erosion and deposition rates; the deposition of suspended particulates; the rate and extent of mixing of dissolved and suspended components of the water body; and water stratification.

§ 230.24 Normal water fluctuations.

(a) Normal water fluctuations in a natural aquatic system consist of daily, seasonal, and annual tidal and flood fluctuations in water level. Biological and physical components of such a system are either attuned to or characterized by these periodic water fluctuations.

(b) Possible loss of environmental characteristics and values: The discharge of dredged or fill material can alter the normal water-level fluctuation pattern of an area, resulting in prolonged periods of inundation, exaggerated extremes of high and low water, or a static, nonfluctuating water level. Such water level modifications may change salinity patterns, alter erosion or sedimentation rates, aggravate water temperature extremes, and upset the nutrient and dissolved oxygen balance of the aquatic ecosystem. In addition, these modifications can alter or destroy communities and populations of aquatic animals and vegetation, induce populations of nuisance organisms, modify habitat, reduce food supplies, restrict movement of aquatic fauna, destroy spawning areas, and change adjacent, upstream, and downstream areas.

§ 230.25 Salinity gradients.

(a) Salinity gradients form where salt water from the ocean meets and mixes with fresh water from land.

(b) Possible loss of environmental characteristics and values: Obstructions which divert or restrict flow of either fresh or salt water may change existing salinity gradients. For example, partial blocking of the entrance to an estuary or river mouth that significantly restricts the movement of the salt water into and out of that area can effectively lower the volume of salt water available for mixing within that estuary. The downstream migration of the salinity gradient can occur, displacing the maximum sedimentation zone and requiring salinity-dependent aquatic biota to adjust to the new conditions, move to new locations if possible, or perish. In the freshwater zone, discharge operations in the upstream regions can have equally adverse impacts. A significant reduction in the volume of fresh water moving into an estuary below that which is considered normal can affect the location and type of mixing thereby changing the characteristic salinity patterns. The resulting changed circulation pattern can cause the upstream migration of the salinity gradient displacing the maximum sedimentation zone. This migration may affect those organisms that are adapted to freshwater environments. It may also affect municipal water supplies.

Note.—Possible actions to minimize adverse impacts regarding site characteristics can be found in Subpart H.

Subpart D—Potential Impacts on Biological Characteristics of the Aquatic Ecosystem

Note.—The impacts described in this subpart should be considered in making the factual determinations and the findings of compliance or non-compliance in Subpart B.

§ 230.30 Threatened and endangered species.

(a) An endangered species is a plant or animal in danger of extinction throughout all or a significant portion of its range. A threatened species is one in danger of becoming an endangered species in the foreseeable future throughout all or a significant portion of its range. Listings of threatened and endangered species as well as critical habitats are maintained by some individual States and by the U.S. Fish and Wildlife Service of the Department of the Interior (codified annually at 50 CFR § 17.11). The Department of Commerce has authority over some threatened and endangered marine mammals, fish and reptiles.

(b) Possible loss of values: The major potential impacts on threatened or endangered species from the discharge of dredged or fill material include:

- (1) Covering or otherwise directly killing species;
- (2) The impairment or destruction of habitat to which these species are limited. Elements of the aquatic habitat which are particularly crucial to the continued survival of some threatened or endangered species include adequate good quality water, spawning and maturation areas, nesting areas, protective cover, adequate and reliable food supply, and resting areas for migratory species. Each of these elements can be adversely affected by changes in either the normal water conditions for clarity, chemical content, nutrient balance, dissolved oxygen, pH, temperature, salinity, current patterns, circulation and fluctuation, or the physical removal of habitat; and
- (3) Facilitating incompatible activities.

(c) Where consultation with the Secretary of the Interior occurs under Section 7 of the Endangered Species Act, the conclusions of the Secretary concerning the impact(s) of the discharge on threatened and endangered species and their habitat shall be considered final.

§ 230.31 Fish, crustaceans, mollusks and other aquatic organisms in the food web.

(a) Aquatic organisms in the food web include, but are not limited to, finfish, crustaceans, mollusks, insects, annelids, planktonic organisms, and the plants and animals on which they feed and depend upon for their needs. All forms and life stages of an organism, throughout its geographic range, are included in this category.

(b) Possible loss of values: The discharge of dredged or fill material can variously affect populations of fish, crustaceans, mollusks and other food web organisms through the release of contaminants which adversely affect adults, juveniles, larvae, or eggs, or result in the establishment or proliferation of an undesirable competitive species of plant or animal at the expense of the desired resident species. Suspended particulates settling on attached or buried eggs can smother the eggs by limiting or sealing off their exposure to oxygenated water. Discharge of dredged and fill material may result in the debilitation or death of sedentary organisms by smothering, exposure to chemical contaminants in dissolved or suspended form, exposure to high levels of suspended particulates, reduction in food supply, or alteration of the substrate upon which they are dependent. Mollusks are particularly

sensitive to the discharge of material during periods of reproduction and growth and development due primarily to their limited mobility. They can be rendered unfit for human consumption by tainting, by production and accumulation of toxins, or by ingestion and retention of pathogenic organisms, viruses, heavy metals or persistent synthetic organic chemicals. The discharge of dredged or fill material can redirect, delay, or stop the reproductive and feeding movements of some species of fish and crustacea, thus preventing their aggregation in accustomed places such as spawning or nursery grounds and potentially leading to reduced populations. Reduction of detrital feeding species or other representatives of lower trophic levels can impair the flow of energy from primary consumers to higher trophic levels. The reduction or potential elimination of food chain organism populations decreases the overall productivity and nutrient export capability of the ecosystem.

§ 230.32 Other wildlife.

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

(b) Possible loss of values: The discharge of dredged or fill material can result in the loss or change of breeding and nesting areas, escape cover, travel corridors, and preferred food sources for resident and transient wildlife species associated with the aquatic ecosystem. These adverse impacts upon wildlife habitat may result from changes in water levels, water flow and circulation, salinity, chemical content, and substrate characteristics and elevation. Increased water turbidity can adversely affect wildlife species which rely upon sight to feed, and disrupt the respiration and feeding of certain aquatic wildlife and food chain organisms. The availability of contaminants from the discharge of dredged or fill material may lead to the bioaccumulation of such contaminants in wildlife. Changes in such physical and chemical factors of the environment may favor the introduction of undesirable plant and animal species at the expense of resident species and communities. In some aquatic environments lowering plant and animal species diversity may disrupt the normal functions of the ecosystem and lead to reductions in overall biological productivity.

Note.—Possible actions to minimize adverse impacts regarding characteristics of biological components of the aquatic ecosystem can be found in Subpart H.

Subpart E—Potential Impacts on Special Aquatic Sites

Note.—The impacts described in this subpart should be considered in making the factual determinations and the findings of compliance or non-compliance in Subpart B. The definition of special aquatic sites is found in § 230.3(q-1).

§ 230.40 Sanctuaries and refuges.

(a) Sanctuaries and refuges consist of areas designated under State and Federal laws or local ordinances to be managed principally for the preservation and use of fish and wildlife resources.

(b) Possible loss of values: Sanctuaries and refuges may be affected by discharges of dredged or fill material which will:

(1) Disrupt the breeding, spawning, migratory movements or other critical life requirements of resident or transient fish and wildlife resources;

(2) Create unplanned, easy and incompatible human access to remote aquatic areas;

(3) Create the need for frequent maintenance activity;

(4) Result in the establishment of undesirable competitive species of plants and animals;

(5) Change the balance of water and land areas needed to provide cover, food, and other fish and wildlife habitat requirements in a way that modifies sanctuary or refuge management practices;

(6) Result in any of the other adverse impacts discussed in Subparts C and D as they relate to a particular sanctuary or refuge.

§ 230.41 Wetlands.

(a)(1) Wetlands consist of areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

(2) Where wetlands are adjacent to open water, they generally constitute the transition to upland. The margin between wetland and open water can best be established by specialists familiar with the local environment, particularly where emergent vegetation merges with submerged vegetation over a broad area in such places as the lateral margins of open water, headwaters, rainwater catch basins, and groundwater seeps. The landward margin of wetlands also can best be identified by specialists familiar with the local environment when vegetation from the two regions merges over a broad area.

(3) Wetland vegetation consists of plants that require saturated soils to survive (obligate wetland plants) as well as plants, including certain trees, that gain a competitive advantage over others because they can tolerate prolonged wet soil conditions and their competitors cannot. In addition to plant populations and communities, wetlands are delimited by hydrological and physical characteristics of the environment. These characteristics should be considered when information about them is needed to supplement information available about vegetation, or where wetland vegetation has been removed or is dormant.

(b) Possible loss of values: The discharge of dredged or fill material in wetlands is likely to damage or destroy habitat and adversely affect the biological productivity of wetlands ecosystems by smothering, by dewatering, by permanently flooding, or by altering substrate elevation or periodicity of water movement. The addition of dredged or fill material may destroy wetland vegetation or result in advancement of succession to dry land species. It may reduce or eliminate nutrient exchange by a reduction of the system's productivity, or by altering current patterns and velocities. Disruption or elimination of the wetland system can degrade water quality by obstructing circulation patterns that flush large expanses of wetland systems, by interfering with the filtration function of wetlands, or by changing the aquifer recharge capability of a wetland. Discharges can also change the wetland habitat value for fish and wildlife as discussed in Subpart D. When disruptions in flow and circulation patterns occur, apparently minor loss of wetland acreage may result in major losses through secondary impacts. Discharging fill material in wetlands as part of municipal, industrial or recreational development may modify the capacity of wetlands to retain and store floodwaters and to serve as a buffer zone shielding upland areas from wave actions, storm damage and erosion.

§ 230.42 Mud flats

(a) Mud flats are broad flat areas along the sea coast and in coastal rivers to the head of tidal influence and in inland lakes, ponds, and riverine systems. When mud flats are inundated, wind and wave action may resuspend bottom sediments. Coastal mud flats are exposed at extremely low tides and inundated at high tides with the water table at or near the surface of the substrate. The substrate of mud flats contains organic material and particles

smaller in size than sand. They are either unvegetated or vegetated only by algal mats.

(b) Possible loss of values: The discharge of dredged or fill material can cause changes in water circulation patterns which may permanently flood or dewater the mud flat or disrupt periodic inundation, resulting in an increase in the rate of erosion or accretion. Such changes can deplete or eliminate mud flat biota, foraging areas, and nursery areas. Changes in inundation patterns can affect the chemical and biological exchange and decomposition process occurring on the mud flat and change the deposition of suspended material affecting the productivity of the area. Changes may reduce the mud flat's capacity to dissipate storm surge runoff.

§ 230.43 Vegetated shallows.

(a) Vegetated shallows are permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as turtle grass and eelgrass in estuarine or marine systems as well as a number of freshwater species in rivers and lakes.

(b) Possible loss of values: The discharge of dredged or fill material can smother vegetation and benthic organisms. It may also create unsuitable conditions for their continued vigor by: (1) changing water circulation patterns; (2) releasing nutrients that increase undesirable algal populations; (3) releasing chemicals that adversely affect plants and animals; (4) increasing turbidity levels, thereby reducing light penetration and hence photosynthesis; and (5) changing the capacity of a vegetated shallow to stabilize bottom materials and decrease channel shoaling. The discharge of dredged or fill material may reduce the value of vegetated shallows as nesting, spawning, nursery, cover, and forage areas, as well as their value in protecting shorelines from erosion and wave actions. It may also encourage the growth of nuisance vegetation.

§ 230.44 Coral reefs.

(a) Coral reefs consist of the skeletal deposit, usually of calcareous or siliceous materials, produced by the vital activities of anthozoan polyps or other invertebrate organisms present in growing portions of the reef.

(b) Possible loss of values: The discharge of dredged or fill material can adversely affect colonies of reef building organisms by burying them, by releasing contaminants such as hydrocarbons into the water column, by reducing light penetration through the water, and by

increasing the level of suspended particulates. Coral organisms are extremely sensitive to even slight reductions in light penetration or increases in suspended particulates. These adverse effects will cause a loss of productive colonies which in turn provide habitat for many species of highly specialized aquatic organisms.

§ 230.45 Riffle and pool complexes.

(a) Steep gradient sections of streams are sometimes characterized by riffle and pool complexes. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. Pools are characterized by a slower stream velocity, a steaming flow, a smooth surface, and a finer substrate. Riffle and pool complexes are particularly valuable habitat for fish and wildlife.

(b) Possible loss of values: Discharge of dredged or fill material can eliminate riffle and pool areas by displacement, hydrologic modification, or sedimentation. Activities which affect riffle and pool areas and especially riffle/pool ratios, may reduce the aeration and filtration capabilities at the discharge site and downstream, may reduce stream habitat diversity, and may retard repopulation of the disposal site and downstream waters through sedimentation and the creation of unsuitable habitat. The discharge of dredged or fill material which alters stream hydrology may cause scouring or sedimentation of riffles and pools. Sedimentation induced through hydrological modification or as a direct result of the deposition of unconsolidated dredged or fill material may clog riffle and pool areas, destroy habitats, and create anaerobic conditions. Eliminating pools and meanders by the discharge of dredged or fill material can reduce water holding capacity of streams and cause rapid runoff from a watershed. Rapid runoff can deliver large quantities of flood water in a short time to downstream areas resulting in the destruction of natural habitat, high property loss, and the need for further hydraulic modification.

Note.—Possible actions to minimize adverse impacts on site or material characteristics can be found in Subpart H.

Subpart F—Potential Effects on Human Use Characteristics

Note.—The effects described in this subpart should be considered in making the factual determinations and the findings of compliance or non-compliance in Subpart B.

§ 230.50 Municipal and private water supplies.

(a) Municipal and private water supplies consist of surface water or ground water which is directed to the intake of a municipal or private water supply system.

(b) Possible loss of values: Discharges can affect the quality of water supplies with respect to color, taste, odor, chemical content and suspended particulate concentration, in such a way as to reduce the fitness of the water for consumption. Water can be rendered unpalatable or unhealthy by the addition of suspended particulates, viruses and pathogenic organisms, and dissolved materials. The expense of removing such substances before the water is delivered for consumption can be high. Discharges may also affect the quantity of water available for municipal and private water supplies. In addition, certain commonly used water treatment chemicals have the potential for combining with some suspended or dissolved substances from dredged or fill material to form other products that can have a toxic effect on consumers.

§ 230.51 Recreational and commercial fisheries.

(a) Recreational and commercial fisheries consist of harvestable fish, crustaceans, shellfish, and other aquatic organisms used by man.

(b) Possible loss of values: The discharge of dredged or fill materials can affect the suitability of recreational and commercial fishing grounds as habitat for populations of consumable aquatic organisms. Discharges can result in the chemical contamination of recreational or commercial fisheries. They may also interfere with the reproductive success of recreational and commercially important aquatic species through disruption of migration and spawning areas. The introduction of pollutants at critical times in their life cycle may directly reduce populations of commercially important aquatic organisms or indirectly reduce them by reducing organisms upon which they depend for food. Any of these impacts can be of short duration or prolonged, depending upon the physical and chemical impacts of the discharge and the biological availability of contaminants to aquatic organisms.

§ 230.52 Water-related recreation.

(a) Water-related recreation encompasses activities undertaken for amusement and relaxation. Activities encompass two broad categories of use: consumptive, e.g., harvesting resources by hunting and fishing; and non-consumptive, e.g., canoeing and sight-seeing.

(b) Possible loss of values: One of the more important direct impacts of dredged or fill disposal is to impair or destroy the resources which support recreation activities. The disposal of dredged or fill material may adversely modify or destroy water use for recreation by changing turbidity, suspended particulates, temperature, dissolved oxygen, dissolved materials, toxic materials, pathogenic organisms, quality of habitat, and the aesthetic qualities of sight, taste, odor, and color.

§ 230.53 Aesthetics.

(a) Aesthetics associated with the aquatic ecosystem consist of the perception of beauty by one or a combination of the senses of sight, hearing, touch, and smell. Aesthetics of aquatic ecosystems apply to the quality of life enjoyed by the general public and property owners.

(b) Possible loss of values: The discharge of dredged or fill material can mar the beauty of natural aquatic ecosystems by degrading water quality, creating distracting disposal sites, inducing inappropriate development, encouraging unplanned and incompatible human access, and by destroying vital elements that contribute to the compositional harmony or unity, visual distinctiveness, or diversity of an area. The discharge of dredged or fill material can adversely affect the particular features, traits, or characteristics of an aquatic area which make it valuable to property owners. Activities which degrade water quality, disrupt natural substrate and vegetational characteristics, deny access to or visibility of the resource, or result in changes in odor, air quality, or noise levels may reduce the value of an aquatic area to private property owners.

§ 230.54 Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves.

(a) These preserves consist of areas designated under Federal and State laws or local ordinances to be managed for their aesthetic, educational, historical, recreational, or scientific value.

(b) Possible loss of values: The discharge of dredged or fill material into such areas may modify the aesthetic,

educational, historical, recreational and/or scientific qualities thereby reducing or eliminating the uses for which such sites are set aside and managed.

Note.—Possible actions to minimize adverse impacts regarding site or material characteristics can be found in Subpart H.

Subpart G—Evaluation and Testing**§ 230.60 General evaluation of dredged or fill material.**

The purpose of these evaluation procedures and the chemical and biological testing sequence outlined in § 230.61 is to provide information to reach the determinations required by § 230.11. Where the results of prior evaluations, chemical and biological tests, scientific research, and experience can provide information helpful in making a determination, these should be used. Such prior results may make new testing unnecessary. The information used shall be documented. Where the same information applies to more than one determination, it may be documented once and referenced in later determinations.

(a) If the evaluation under paragraph (b) indicates the dredged or fill material is not a carrier of contaminants, then the required determinations pertaining to the presence and effects of contaminants can be made without testing. Dredged or fill material is most likely to be free from chemical, biological, or other pollutants where it is composed primarily of sand, gravel, or other naturally occurring inert material. Dredged material so composed is generally found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels. However, when such material is discolored or contains other indications that contaminants may be present, further inquiry should be made.

(b) The extraction site shall be examined in order to assess whether it is sufficiently removed from sources of pollution to provide reasonable assurance that the proposed discharge material is not a carrier of contaminants. Factors to be considered include but are not limited to:

(1) Potential routes of contaminants or contaminated sediments to the extraction site, based on hydrographic or other maps, aerial photography, or other materials that show watercourses, surface relief, proximity to tidal movement, private and public roads, location of buildings, municipal and industrial areas, and agricultural or forest lands.

(2) Pertinent results from tests previously carried out on the material at the extraction site, or carried out on similar material for other permitted projects in the vicinity. Materials shall be considered similar if the sources of contamination, the physical configuration of the sites and the sediment composition of the materials are comparable, in light of water circulation and stratification, sediment accumulation and general sediment characteristics. Tests from other sites may be relied on only if no changes have occurred at the extraction sites to render the results irrelevant.

(3) Any potential for significant introduction of persistent pesticides from land runoff or percolation;

(4) Any records of spills or disposal of petroleum products or substances designated as hazardous under section 311 of the Clean Water Act (See 40 CFR 116);

(5) Information in Federal, State and local records indicating significant introduction of pollutants from industries, municipalities, or other sources, including types and amounts of waste materials discharged along the potential routes of contaminants to the extraction site; and

(6) Any possibility of the presence of substantial natural deposits of minerals or other substances which could be released to the aquatic environment in harmful quantities by man-induced discharge activities.

(c) To reach the determinations in § 230.11 involving potential effects of the discharge on the characteristics of the disposal site, the narrative guidance in Subparts C-F shall be used along with the general evaluation procedure in § 230.60 and, if necessary, the chemical and biological testing sequence in § 230.61. Where the discharge site is adjacent to the extraction site and subject to the same sources of contaminants, and materials at the two sites are substantially similar, the fact that the material to be discharged may be a carrier of contaminants is not likely to result in degradation of the disposal site. In such circumstances, when dissolved material and suspended particulates can be controlled to prevent carrying pollutants to less contaminated areas, testing will not be required.

(d) Even if the § 230.60(b) evaluation (previous tests, the presence of polluting industries and information about their discharge or runoff into waters of the U.S., bioinventories, etc.) leads to the conclusion that there is a high probability that the material proposed for discharge is a carrier of contaminants, testing may not be necessary if constraints are available to

reduce contamination to acceptable levels within the disposal site and to prevent contaminants from being transported beyond the boundaries of the disposal site, if such constraints are acceptable to the permitting authority and the Regional Administrator, and if the potential discharger is willing and able to implement such constraints. However, even if tests are not performed, the permitting authority must still determine the probable impact of the operation on the receiving aquatic ecosystem. Any decision not to test must be explained in the determinations made under § 230.11.

§ 230.61 Chemical, biological, and physical evaluation and testing.

Note.—The Agency is today proposing revised testing guidelines. The evaluation and testing procedures in this section are based on the 1975 § 404(b)(1) interim final Guidelines and shall remain in effect until the revised testing guidelines are published as final regulations.

(a) No single test or approach can be applied in all cases to evaluate the effects of proposed discharges of dredged or fill materials. This section provides some guidance in determining which test and/or evaluation procedures are appropriate in a given case. Interim guidance to applicants concerning the applicability of specific approaches or procedures will be furnished by the permitting authority.

(b) *Chemical-biological interactive effects.* The principal concerns of discharge of dredged or fill material that contain contaminants are the potential effects on the water column and on communities of aquatic organisms.

(1) *Evaluation of chemical-biological interactive effects.* Dredged or fill material may be excluded from the evaluation procedures specified in paragraphs (b)(2) and (3) of this section if it is determined, on the basis of the evaluation in § 230.60, that the likelihood of contamination by contaminants is acceptably low, unless the permitting authority, after evaluating and considering any comments received from the Regional Administrator, determines that these procedures are necessary. The Regional Administrator may require, on a case-by-case basis, testing approaches and procedures by stating what additional information is needed through further analyses and how the results of the analyses will be of value in evaluating potential environmental effects.

If the General Evaluation indicates the presence of a sufficiently large number of chemicals to render impractical the identification of all contaminants by chemical testing, information may be

obtained from bioassays in lieu of chemical tests.

(2) *Water column effects.* (i) Sediments normally contain constituents that exist in various chemical forms and in various concentrations in several locations within the sediment. An elutriate test may be used to predict the effect on water quality due to release of contaminants from the sediment to the water column. However, in the case of fill material originating on land which may be a carrier of contaminants, a water leachate test is appropriate.

(ii) Major constituents to be analyzed in the elutriate are those deemed critical by the permitting authority, after evaluating and considering any comments received from the Regional Administrator, and considering results of the evaluation in § 230.60. Elutriate concentrations should be compared to concentrations of the same constituents in water from the disposal site. Results should be evaluated in light of the volume and rate of the intended discharge, the type of discharge, the hydrodynamic regime at the disposal site, and other information relevant to the impact on water quality. The permitting authority should consider the mixing zone in evaluating water column effects. The permitting authority may specify bioassays when such procedures will be of value.

(3) *Effects on benthos.* The permitting authority may use an appropriate benthic bioassay (including bioaccumulation tests) when such procedures will be of value in assessing ecological effects and in establishing discharge conditions.

(c) *Procedure for comparison of sites.*

(1) When an inventory of the total concentration of contaminants would be of value in comparing sediment at the dredging site with sediment at the disposal site, the permitting authority may require a sediment chemical analysis. Markedly different concentrations of contaminants between the excavation and disposal sites may aid in making an environmental assessment of the proposed disposal operation. Such differences should be interpreted in terms of the potential for harm as supported by any pertinent scientific literature.

(2) When an analysis of biological community structure will be of value to assess the potential for adverse environmental impact at the proposed disposal site, a comparison of the biological characteristics between the excavation and disposal sites may be required by the permitting authority. Biological indicator species may be useful in evaluating the existing degree of stress at both sites. Sensitive species

representing community components colonizing various substrate types within the sites should be identified as possible bioassay organisms if tests for toxicity are required. Community structure studies should be performed only when they will be of value in determining discharge conditions. This is particularly applicable to large quantities of dredged material known to contain adverse quantities of toxic materials. Community studies should include benthic organisms such as microbiota and harvestable shellfish and finfish. Abundance, diversity, and distribution should be documented and correlated with substrate type and other appropriate physical and chemical environmental characteristics.

(d) *Physical tests and evaluation.* The effect of a discharge of dredged or fill material on physical substrate characteristics at the disposal site, as well as on the water circulation, fluctuation, salinity, and suspended particulates content there, is important in making factual determinations in § 230.11. Where information on such effects is not otherwise available to make these factual determinations, the permitting authority shall require appropriate physical tests and evaluations as are justified and deemed necessary. Such tests may include sieve tests, settleability tests, compaction tests, mixing zone and suspended particulate plume determinations, and site assessments of water flow, circulation, and salinity characteristics.

Subpart H—Actions To Minimize Adverse Effects

Note.—There are many actions which can be undertaken in response to § 203.10(d) to minimize the adverse effects of discharges of dredged or fill material. Some of these, grouped by type of activity, are listed in this subpart.

§ 230.70 Actions concerning the location of the discharge.

The effects of the discharge can be minimized by the choice of the disposal site. Some of the ways to accomplish this are by:

(a) Locating and confining the discharge to minimize smothering of organisms;

(b) Designing the discharge to avoid a disruption of periodic water inundation patterns;

(c) Selecting a disposal site that has been used previously for dredged material discharge;

(d) Selecting a disposal site at which the substrate is composed of material similar to that being discharged, such as discharging sand on sand or mud on mud;

(e) Selecting the disposal site, the discharge point, and the method of discharge to minimize the extent of any plume;

(f) Designing the discharge of dredged or fill material to minimize or prevent the creation of standing bodies of water in areas of normally fluctuating water levels, and minimize or prevent the drainage of areas subject to such fluctuations.

§ 230.71 Actions concerning the material to be discharged.

The effects of a discharge can be minimized by treatment of, or limitations on the material itself, such as:

(a) Disposal of dredged material in such a manner that physiochemical conditions are maintained and the potency and availability of pollutants are reduced.

(b) Limiting the solid, liquid, and gaseous components of material to be discharged at a particular site;

(c) Adding treatment substances to the discharge material;

(d) Utilizing chemical flocculants to enhance the deposition of suspended particulates in diked disposal areas.

§ 230.72 Actions controlling the material after discharge.

The effects of the dredged or fill material after discharge may be controlled by:

(a) Selecting discharge methods and disposal sites where the potential for erosion, slumping or leaching of materials into the surrounding aquatic ecosystem will be reduced. These sites or methods include, but are not limited to:

(1) Using containment levees, sediment basins, and cover crops to reduce erosion;

(2) Using lined containment areas to reduce leaching where leaching of chemical constituents from the discharged material is expected to be a problem;

(b) Capping in-place contaminated material with clean material or selectively discharging the most contaminated material first to be capped with the remaining material;

(c) Maintaining and containing discharged material properly to prevent point and nonpoint sources of pollution;

(d) Timing the discharge to minimize impact, for instance during periods of unusual high water flows, wind, wave, and tidal actions.

§ 230.73 Actions affecting the method of dispersion.

The effects of a discharge can be minimized by the manner in which it is dispersed, such as:

(a) Where environmentally desirable, distributing the dredged material widely in a thin layer at the disposal site to maintain natural substrate contours and elevation;

(b) Orienting a dredged or fill material mound to minimize undesirable obstruction to the water current or circulation pattern, and utilizing natural bottom contours to minimize the size of the mound;

(c) Using silt screens or other appropriate methods to confine suspended particulate/turbidity to a small area where settling or removal can occur;

(d) Making use of currents and circulation patterns to mix, disperse and dilute the discharge;

(e) Minimizing water column turbidity by using a submerged diffuser system. A similar effect can be accomplished by submerging pipeline discharges or otherwise releasing materials near the bottom;

(f) Selecting sites or managing discharges to confine and minimize the release of suspended particulates to give decreased turbidity levels and to maintain light penetration for organisms;

(g) Setting limitations on the amount of material to be discharged per unit of time or volume of receiving water.

§ 230.74 Actions related to technology.

Discharge technology should be adapted to the needs of each site. In determining whether the discharge operation sufficiently minimizes adverse environmental impacts, the applicant should consider:

(a) Using appropriate equipment or machinery, including protective devices, and the use of such equipment or machinery in activities related to the discharge of dredged or fill material;

(b) Employing appropriate maintenance and operation on equipment or machinery, including adequate training, staffing, and working procedures;

(c) Using machinery and techniques that are especially designed to reduce damage to wetlands. This may include machines equipped with devices that scatter rather than mound excavated materials, machines with specially designed wheels or tracks, and the use of mats under heavy machines to reduce wetland surface compaction and rutting;

(d) Designing access roads and channel spanning structures using culverts, open channels, and diversions that will pass both low and high water flows, accommodate fluctuating water levels, and maintain circulation and faunal movement;

(e) Employing appropriate machinery and methods of transport of the material for discharge.

§ 230.75 Actions affecting plant and animal populations.

Minimization of adverse effects on populations of plants and animals can be achieved by:

(a) Avoiding changes in water current and circulation patterns which would interfere with the movement of animals;

(b) Selecting sites or managing discharges to prevent or avoid creating habitat conducive to the development of undesirable predators or species which have a competitive edge ecologically over indigenous plants or animals;

(c) Avoiding sites having unique habitat or other value, including habitat of threatened or endangered species;

(d) Using planning and construction practices to institute habitat development and restoration to produce a new or modified environmental state of higher ecological value by displacement of some or all of the existing environmental characteristics. Habitat development and restoration techniques can be used to minimize adverse impacts and to compensate for destroyed habitat. Use techniques that have been demonstrated to be effective in circumstances similar to those under consideration wherever possible. Where proposed development and restoration techniques have not yet advanced to the pilot demonstration stage, initiate their use on a small scale to allow corrective action if unanticipated adverse impacts occur.

(e) Timing discharge to avoid spawning or migration seasons and other biologically critical time periods;

(f) Avoiding the destruction of remnant natural sites within areas already affected by development.

§ 230.76 Actions affecting human use.

Minimization of adverse effects on human use potential may be achieved by:

(a) Selecting discharge sites and following discharge procedures to prevent or minimize any potential damage to the aesthetically pleasing features of the aquatic site (e.g. viewscapes), particularly with respect to water quality;

(b) Selecting disposal sites which are not valuable as natural aquatic areas;

(c) Timing the discharge to avoid the seasons or periods when human recreational activity associated with the aquatic site is most important;

(d) Following discharge procedures which avoid or minimize the disturbance of aesthetic features of an aquatic site or ecosystem.

(e) Selecting sites that will not be detrimental or increase incompatible human activity, or require the need for frequent dredge or fill maintenance activity in remote fish and wildlife areas:

(f) Locating the disposal site outside of the vicinity of a public water supply intake.

§ 230.77 Other actions.

(a) In the case of fills, controlling runoff and other discharges from activities to be conducted on the fill;

(b) In the case of dams, designing water releases to accommodate the needs of fish and wildlife.

(c) In dredging projects funded by Federal agencies other than the Corps of Engineers, maintain desired water quality of the return discharge through agreement with the Federal funding authority on scientifically defensible pollutant concentration levels in addition to any applicable water quality standards.

(d) When a significant ecological change in the aquatic environment is proposed by the discharge of dredged or fill material, the permitting authority should consider the ecosystem that will be lost as well as the environmental benefits of the new system.

Subpart I—Planning To Shorten Permit Processing Time

§ 230.80 Advanced identification of disposal areas.

(a) Consistent with these Guidelines, EPA and the permitting authority, on their own initiative or at the request of any other party and after consultation with any affected State that is not the permitting authority, may identify sites which will be considered as:

(1) Possible future disposal sites, including existing disposal sites and non-sensitive areas; or

(2) Areas generally unsuitable for disposal site specification;

(b) The identification of any area as a possible future disposal site should not be deemed to constitute a permit for the discharge of dredged or fill material within such area or a specification of a disposal site. The identification of areas that generally will not be available for disposal site specification should not be deemed as prohibiting applications for permits to discharge dredged or fill material in such areas. Either type of identification constitutes information to facilitate individual or General permit application and processing.

(c) An appropriate public notice of the proposed identification of such areas shall be issued;

(d) To provide the basis for advanced identification of disposal areas, and areas unsuitable for disposal, EPA and the permitting authority shall consider the likelihood that use of the area in question for dredged or fill material disposal will comply with these Guidelines. To facilitate this analysis, EPA and the permitting authority should review available water resources management data including data available from the public, other Federal and State agencies, and information from approved Coastal Zone Management programs and River Basin Plans.

(e) The permitting authority should maintain a public record of the identified areas and a written statement of the basis for identification.

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Regulatory Guidance Letter 93-02

SUBJECT: Guidance on Flexibility of the 404(b)(1) Guidelines and Mitigation Banking

DATE: August 23, 1993

EXPIRES: December 31, 1998

1. Enclosed are two guidance documents signed by the Office of the Assistant Secretary of the Army (Civil Works) and the Environmental Protection Agency. The first document provides guidance on the flexibility that the U.S. Army Corps of Engineers should be utilizing when making determinations of compliance with the Section 404(b)(1) Guidelines, particularly with regard to the alternatives analysis. The second document provides guidance on the use of mitigation banks as a means of providing compensatory mitigation for Corps regulatory decisions.

2. Both enclosed guidance documents should be implemented immediately. These guidance documents constitute an important aspect of the President's plan for protecting the Nation's wetlands, "[Protecting America's Wetlands: A Fair, Flexible and Effective Approach](#)" (published on 24 August 1993).

3. This guidance expires 31 December 1998 unless sooner revised or rescinded.

FOR THE DIRECTOR OF CIVIL WORKS:

JOHN P. ELMORE, P.E.
Chief, Operations, Construction and Readiness Division
Directorate of Civil Works

United States Environmental Protection Agency
Office of Wetlands, Oceans and Watersheds
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U.S. Army Corps of Engineers
Washington, D.C. 20314

MEMORANDUM TO THE FIELD

SUBJECT: APPROPRIATE LEVEL OF ANALYSIS REQUIRED FOR EVALUATING COMPLIANCE WITH THE SECTION 404(b)(1) GUIDELINES ALTERNATIVES REQUIREMENTS

1. PURPOSE: The purpose of this memorandum is to clarify the appropriate level of analysis required for evaluating compliance with the Clean Water Act Section 404(b)(1) Guidelines requirements for consideration of alternatives. 40 CFR 230.10(a). Specifically, this memorandum describes the flexibility afforded by the Guidelines to make regulatory decisions based on the relative severity of the environmental impact of proposed discharges of dredged or fill material into waters of the United States.

2. BACKGROUND: The Guidelines are the substantive environmental standards by which all Section 404 permit applications are evaluated. The Guidelines, which are binding regulations, were published by the Environmental Protection Agency at 40 CFR Part 230 on December 24, 1980. The fundamental precept of the Guidelines is that discharges of dredged or fill material into waters of the United States, including wetlands, should not occur unless it can be demonstrated that such discharges, either individually or cumulatively, will not result in unacceptable adverse effects on the aquatic ecosystem. The Guidelines specifically require that "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." 40 CFR 230.10(a). Based on this provision, the applicant is required in every case (irrespective of whether the discharge site is a special aquatic site or whether the activity associated with the discharge is water dependent) to evaluate opportunities for use of non-aquatic areas and other aquatic sites that would result in less adverse impact on the aquatic ecosystem. A permit cannot be issued, therefore, in circumstances where a less environmentally damaging practicable alternative for the proposed discharge exists (except as provided for under Section 404(b)(2)).

3. DISCUSSION: The Guidelines are, as noted above, binding regulations. It is important to recognize, however, that this regulatory status does not limit the inherent flexibility provided in the Guidelines for implementing these provisions. The preamble to the Guidelines is very clear in this regard:

Of course, as the regulation itself makes clear, a certain amount of flexibility is still intended. For example, while the ultimate conditions of compliance are "regulatory", the Guidelines allow some room for judgment in determining what must be done to arrive at a conclusion that those conditions have or have not been met.

Guidelines Preamble, "Regulations versus Guidelines", 45 Federal Register 85336 (December 24, 1980)

Notwithstanding this flexibility, the record must contain sufficient information to demonstrate that the proposed discharge complies with the requirements of Section 230.10(a) of the Guidelines. The amount of information needed to make such a determination and the level of scrutiny required by the Guidelines is commensurate with the severity of the environmental impact (as determined by the functions of the aquatic resource and the nature of the proposed activity) and the scope/cost of the project.

a. Analysis Associated with Minor Impacts:

The Guidelines do not contemplate that the same intensity of analysis will be required for all types of projects but instead envision a correlation between the scope of the evaluation and the potential extent of adverse impacts on the aquatic environment. The introduction to Section 230.10(a) recognizes that the level of analysis required may vary with the nature and complexity of each individual case:

Although all requirements in Section 230.10 must be met, the compliance evaluation procedures will vary to reflect the seriousness of the potential for adverse impacts on the aquatic ecosystems posed by specific dredged or fill material discharge activities.

40 CFR 230.10

Similarly, Section 230.6 ("Adaptability") makes clear that the Guidelines:

*allow evaluation and documentation for a variety of activities, ranging from those with large, complex impacts on the aquatic environment to those for which the impact is likely to be innocuous. It is unlikely that the Guidelines will apply in their entirety to any one activity, no matter how complex. It is anticipated that substantial numbers of permit applications will be for minor, routine activities that have little, if any, potential for significant degradation of the aquatic environment. **It generally is not intended or expected that extensive testing, evaluation or analysis will be needed to make findings of compliance in such routine cases.***

40 CFR 230.6 (9) (emphasis added)

Section 230.6 also emphasizes that when, making determinations of compliance with the Guidelines, users:

*must recognize the different levels of effort that should be associated with varying degrees of impact and require or prepare commensurate documentation. **The level of documentation should reflect the significance and complexity of the discharge activity.***

40 CFR 230.6 (b) (emphasis added)

Consequently, the Guidelines clearly afforded flexibility to adjust the stringency of the alternatives review for projects that would have only minor impacts. Minor impacts are associated with activities that generally would have little potential to degrade the aquatic environment and include one, and frequently more, of the following characteristics: are located in aquatic resources of limited natural function; are small in size and cause little direct impact; have little potential for secondary or cumulative impacts; or cause only temporary impacts. It is important to recognize, however, that in some circumstances even small or temporary fills result in substantial impacts, and that in such cases a more detailed evaluation is

necessary. The Corps Districts and EPA Regions will, through the standard permit evaluation process, coordinate with the U.S. Fish and Wildlife Service, National Marine Fisheries Service and other appropriate state and Federal agencies in evaluating the likelihood that adverse impacts would result from a particular proposal. It is not appropriate to consider compensatory mitigation in determining whether a proposed discharge will cause only minor impacts for purposes of the alternatives analysis required by Section 230.10(a).

In reviewing projects that have the potential only for minor impacts on the aquatic environment, Corps and EPA field offices are directed to consider, in coordination with state and Federal resource agencies, the following factors:

- i. Such projects by their nature should not cause or contribute to significant degradation individually or cumulatively. Therefore, it generally should not be necessary to conduct or require detailed analyses to determine compliance with Section 230.10(c).
- ii. Although sufficient information must be developed to determine whether the proposed activity is in the fact the least damaging practicable alternative, the Guidelines do not require an elaborate search for practicable alternatives if it is reasonably anticipated that there are only minor differences between the environmental impacts of the proposed activity and potentially practicable alternatives. This decision will be made after consideration of resource agency comments on the proposed project. It often makes sense to examine first whether potential alternatives would result in no identifiable or discernible difference in impact on the aquatic ecosystem. Those alternatives that do not may be eliminated from the analysis since Section 230.10(a) of the Guidelines only prohibits discharges when a practicable alternative exists when would have *less adverse impact on the aquatic ecosystem*. Because evaluating practicability is generally the more difficult aspect of the alternatives analysis, this approach should save time and effort for both the applicant and the regulatory agencies.* By initially focusing the alternatives analysis on the question of impacts on the aquatic ecosystem, it may be impossible to limit (or in some instances eliminate altogether) the number of alternatives that have to be evaluated for practicability.

* In certain instances, however, it may be easier to examine practicability first. Some projects may be so site-specific (e.g. erosion control, bridge replacement) that no offsite alternative could be practicable. In such cases the alternatives analysis may appropriately be limited to onsite options only.

- iii. When it is determined that there is no identifiable or discernible difference in adverse impact on the environment between the applicant's proposed alternative and all other practicable alternatives, then the applicant's

alternative is considered as satisfying the requirements of Section 230.10(a).

- iv. Even where a practicable alternative exists that would have less adverse impact on the aquatic ecosystem, the Guidelines allow it to be rejected if it would have "other significant adverse environment consequences." 40 CFR 230.10(A). As explained in the preamble, this allows for consideration of "evidence of damages to other ecosystems in deciding whether there is a 'better' alternative." Hence, in applying the alternatives analysis required by the Guidelines, it is not appropriate to select an alternative where minor impacts on the aquatic environment are avoided at the cost of substantial impacts to other natural environmental values.
- v. In cases of negligible or trivial impacts (e.g., small discharges to construct individual driveways), it may be possible to conclude that no alternative location could result in less adverse impact on the aquatic environment within the meaning of the Guidelines. In such cases, it may not be necessary to conduct an offsite alternatives analysis but instead require only any practicable onsite minimization.

This guidance concerns application of the Section 404(b)(1) Guidelines to projects with minor impacts. Projects which may cause more than minor impacts on the aquatic environment, either individually or cumulatively, should be subjected to a proportionately more detailed level of analysis to determine compliance or noncompliance with the Guidelines. Projects which cause substantial impacts, in particular, must be thoroughly evaluated through the standard permit evaluation process to determine compliance with all provisions of the Guidelines.

b. Relationship between the Scope of Analysis and the Scope/Cost of the Proposed Project:

The Guidelines provide the Corps and EPA with discretion for determining the necessary level of analysis to support a conclusion as to whether or not an alternative is practicable. Practicable alternatives are those alternatives that are "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." 40 CFR 230.10(a)(2). The preamble to the Guidelines provides clarification on how cost is to be considered in the determination of practicability:

*Our intent is to consider those alternatives which are **reasonable in terms of the overall scope/cost of the proposed project**. The term economic [for which the term "cost" was substituted in the final rule] might be construed to include consideration of the applicant's financial standing, or investment, or market share, a cumbersome inquiry which is not necessarily material to the objectives of the Guidelines.*

Therefore, the level of analysis required for determining which alternatives are practicable will vary depending on the type of project proposed. The determination of what constitutes an unreasonable expense should generally consider whether the projected cost is substantially greater than the costs normally associated with the particular type of project. Generally, as the scope/cost of the project increases, the level of analysis should also increase. To the extent the Corps obtains information on the costs associated with the project, such information may be considered when making a determination of what constitutes an unreasonable expense.

The preamble to the Guidelines also states that "[i]f an alleged alternative is unreasonably expensive to the applicant, the alternative is not, 'practicable.'" Guidelines Preamble, "Economic Factors", 45 Federal Register 85343 (December 24, 1980). Therefore, to the extent that the individual homeowners and small businesses may typically be relevant consideration in determining what constitutes a practicable alternative. It is important to emphasize, however, that it is not a particular applicant's financial standing that is the primary consideration for determining practicability, but rather characteristics of the project and what constitutes a reasonable expense for these projects that are most relevant to practicability determinations.

4. The burden of proof to demonstrate compliance with the Guidelines rests with the applicant; where insufficient information is provided to determine compliance, the Guidelines require that no permit be issued. 40 CFR 230.12(a)(3)(iv).
5. A reasonable, common sense approach in applying the requirements of the Guidelines' alternatives analysis is fully consistent with sound environmental protection. The Guidelines clearly contemplate that reasonable direction should be applied based on the nature of the aquatic resource and potential impacts of a proposed activity in determining compliance with the alternatives test. Such an approach encourages effective decision making and fosters a better understanding and enhanced confidence in the Section 404 program.
6. This guidance is consistent with the February 6, 1990 "Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning The Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines."

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MEMORANDUM TO THE FIELD

SUBJECT: ESTABLISHMENT AND USE OF WETLAND MITIGATION BANKS IN
THE CLEAN WATER ACT SECTION 404 REGULATORY PROGRAM

1. This memorandum provides guidelines for the establishment and use of wetland mitigation banks in the [Clean Water Act Section 404](#) regulatory program. This memorandum serves as interim guidance pending completion of Phase I by the Corps of Engineers' Institute for Water Resources study on wetland mitigation banking,* at which time this guidance will be reviewed and any appropriate revisions will be incorporated into final guidelines.

* The Corps of Engineers Institute for Water Resources, under the authority of Section 307(d) of the Water Resources Development Act of 1990, is undertaking a comprehensive two-year review and evaluation of wetland mitigation banking to assist in the development of a national policy on this issue. The interim summary report documenting the results of the first phase of the study is scheduled for completion in the fall of 1993.

2. For purposes of this guidance, wetland mitigation banking refers to the restoration, creation, enhancement, and, in exceptional circumstances, preservation of wetlands or other aquatic habitats expressly for the purpose of providing compensatory mitigation in advance of discharges into wetlands permitted under the Section 404 regulatory program. Wetland mitigation banks can have several advantages over individual mitigation projects, some of which are listed below:

- a. Compensatory mitigation can be implemented and functioning in advance of project impacts, thereby reducing temporal losses of wetland functions and uncertainty over whether the mitigation will be successful in offsetting wetland losses.
- b. It may be more ecologically advantageous for maintaining the integrity of the aquatic ecosystem to consolidate compensatory mitigation for impacts to many smaller, isolated or fragmented habitats into a single large parcel or contiguous parcels.
- c. Development of a wetland mitigation bank can bring together financial resources and planning and scientific expertise not practicable to many individual mitigation

proposals. This consolidation of resources can increase the potential for the establishment and long-term management of successful mitigation.

- d. Wetland mitigation banking proposals may reduce regulatory uncertainty and provide more cost-effective compensatory mitigation opportunities.

3. The Section 404(b)(1) Guidelines (Guidelines), as clarified by the "Memorandum of Agreement Concerning the Determination of Mitigation under the Section 404(b)(1) Guidelines" (Mitigation MOA) signed February 6, 1990, by the Environmental Protection Agency and the Department of the Army, establish a mitigation sequence that is used in the evaluation of individual permit applications. Under this sequence, all appropriate and practicable steps must be undertaken by the applicant to first avoid and then minimize adverse impacts to the aquatic ecosystem. Remaining unavoidable impacts must then be offset through compensatory mitigation to the extent appropriate and practicable. Requirements for compensatory mitigation may be satisfied through the use of wetland mitigation banks, so long as their use is consistent with standard practices for evaluating compensatory mitigation proposals outlined in the Mitigation MOA. It is important to emphasize that, given the mitigation sequence requirements described above, permit applicants should not anticipate that the establishment of, or participation in, a wetland mitigation bank will ultimately lead to a determination of compliance with the Section 404(b)(1) Guidelines without adequate demonstration that impacts associated with the proposed discharge have been avoided and minimized to the extent practicable.

4. The agencies' preference for on-site, in-kind compensatory mitigation does not preclude the use of wetland mitigation banks where it has been determined by the Corps, or other appropriate permitting agency, in coordination with the Federal resource agencies through the standard permit evaluation process, that the use of a particular mitigation bank as compensation for proposed wetland impacts would be appropriate for offsetting impacts to the aquatic ecosystem. In making such a determination, careful consideration must be given to wetland functions, landscape position, and affected species populations at both the impact and mitigation bank sites. In addition, compensation for wetland impacts should occur, where appropriate and practicable, within the same watershed as the impact site. Where a mitigation bank is being developed in conjunction with a wetland resource planning initiative (e.g., Special Area Management Plan, State Wetland Conservation Plan) to satisfy particular wetland restoration objectives, the permitting agency will determine, in coordination with the Federal resource agencies, whether use of the bank should be considered an appropriate form of compensatory mitigation for impacts occurring within the same watershed.

5. Wetland mitigation banks should generally be in place and functional before credits may be used to offset permitted wetland losses. However, it may be appropriate to allow incremental distribution of credits corresponding to the appropriate stage of successful establishment of wetland functions. Moreover, variable mitigation ratios (credit acreage to impacted wetland acreage) may be used in such circumstances to reflect the wetland functions attained at a bank site at a particular point in time. For example, higher ratios would be required when a bank is not yet fully functional at the time credits are to be withdrawn.

6. Establishment of each mitigation bank should be accompanied by the development of a formal written agreement (e.g., memorandum of agreement) among the Corps, EPA, other relevant resource agencies, and those parties who will own, develop, operate or otherwise participate in the bank. The purpose of the agreement is to establish clear guidelines for establishment and use of the mitigation bank. A wetlands mitigation bank may also be established through issuance of a Section 404 permit where establishing the proposed bank involves a discharge of dredged or fill material into waters of the United States. The banking agreement or, where applicable, special conditions of the permit establishing the bank should address the following considerations, where appropriate:

- a. location of the mitigation bank;
- b. goals and objectives for the mitigation project;
- c. identification of bank sponsors and participants;
- d. development and maintenance plan;
- e. evaluation methodology acceptable to all signatories to establish bank credits and assess bank success in meeting the project goals and objectives;
- f. specific accounting procedures for tracking crediting and debiting;
- g. geographic area of applicability;
- h. monitoring requirements and responsibilities;
- i. remedial action responsibilities including funding; and
- j. provisions for protecting the mitigation bank in perpetuity.

Agency participation in a wetlands mitigation banking agreement may not, in any way, restrict or limit the authorities and responsibilities of the agencies.

7. An appropriate methodology, acceptable to all signatories, should be identified and used to evaluate the success of wetland restoration and creation efforts within the mitigation bank and to identify the appropriate stage of development for issuing mitigation credits. A full range of wetland functions should be assessed. Functional evaluations of the mitigation bank should generally be conducted by a multi-disciplinary team representing involved resource and regulatory agencies and other appropriate parties. The same methodology should be used to determine the functions and values of both credits and debits. As an alternative, credits and debits can be based on acres of various types of wetlands (e.g., National Wetland Inventory classes). Final determinations regarding debits and credits will be made by the Corps, or other appropriate permitting agency, in consultation with Federal resource agencies.

8. Permit applications may draw upon the available credits of a third party mitigation bank (i.e., a bank developed and operated by an entity other than the permit applicant). The Section 404 permit, however, must state explicitly that the permittee remains responsible for ensuring that the mitigation requirements are satisfied.

9. To ensure legal enforceability of the mitigation conditions, use of mitigation bank credits must be conditioned in the Section 404 permit by referencing the banking agreement or Section 404 permit establishing the bank; however, such a provision should

not limit the responsibility of the Section 404 permittee for satisfying all legal requirements of the permit.

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Office of the Assistant Secretary of the Army (Civil Works)
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Federal Register

**Tuesday,
March 28, 2006**

Part II

**Department of
Defense**

**Department of the Army, Corps of
Engineers**

33 CFR Parts 325 and 332

**Environmental
Protection Agency**

40 CFR Part 230

**Compensatory Mitigation for Losses of
Aquatic Resources; Proposed Rule**

DEPARTMENT OF DEFENSE**Department of the Army, Corps of Engineers****33 CFR Parts 325 and 332****ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 230**

[EPA-HQ-OW-2006-0020]

RIN 0710-AA55

Compensatory Mitigation for Losses of Aquatic Resources

AGENCIES: U.S. Army Corps of Engineers, DoD; and Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The U.S. Army Corps of Engineers (the Corps) and the Environmental Protection Agency (EPA) are proposing to revise regulations governing compensatory mitigation for activities authorized by permits issued by the Department of the Army. The proposed regulations are intended to establish performance standards and criteria for the use of permittee-responsible compensatory mitigation and mitigation banks, and to improve the quality and success of compensatory mitigation projects for activities authorized by Department of the Army permits. The proposed regulations are also intended to account for regional variations in aquatic resource types, functions, and values, and apply equivalent standards to each type of compensatory mitigation to the maximum extent practicable. The proposed rule includes a watershed approach to improve the quality and success of compensatory mitigation projects in replacing losses of aquatic resource functions, services, and values resulting from activities authorized by Department of the Army permits. We are proposing to require in-lieu fee programs, after a five-year transition period, to meet the same standards as mitigation banks.

DATES: Submit comments on or before May 30, 2006.

ADDRESSES: You may submit comments, identified by docket number EPA-HQ-OW-2006-0020 and/or RIN 0710-AA55, by any of the following methods:

- Federal eRulemaking Portal (recommended method of comment submission): <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
- E-mail: ow-docket@epamail.epa.gov. Include the

docket number, EPA-HQ-OW-2006-0020, and/or the RIN number, 0710-AA55, in the subject line of the message.

- Mail: USEPA Docket Center, Attention Docket Number EPA-HQ-OW-2006-0020, 1200 Pennsylvania Ave., NW., Washington, DC 20460.
- Hand Delivery: USEPA Docket Center, Room B102, EPA West, Attention Docket Number EPA-HQ-OW-2006-0020, 1301 Constitution Ave., NW., Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to docket number EPA-HQ-OW-2006-0020 and/or RIN 0710-AA55. All comments received will be included in the public docket without change and may be made available on-line at <http://www.regulations.gov>, including any personal information provided, unless the commenter indicates that the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI, or otherwise protected, through www.regulations.gov or e-mail. The www.regulations.gov Web site is an anonymous access system, which means we will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail directly to EPA without going through www.regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, we recommend that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If we cannot read your comment because of technical difficulties and cannot contact you for clarification, we may not be able to consider your comment. Electronic comments should avoid the use of any special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

Docket: For access to the docket to read background documents or comments received, go to www.regulations.gov. All documents in the docket are listed. Although listed in the index, some information is not publicly available, such as CBI or other information whose disclosure is restricted by statute. Certain other

material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the Water Docket, EPA/DC, EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Water Docket is (202) 566-2426.

Consideration will be given to all comments received within 60 days of the date of publication of this notice.

FOR FURTHER INFORMATION CONTACT: Mr. David Olson at 202-761-4922 or by e-mail at david.b.olson@usace.army.mil, or Mr. Palmer Hough at 202-566-8323 or by e-mail at mitigationrule@epa.gov. Information can also be found at the EPA compensatory mitigation webpage at: <http://www.epa.gov/wetlandsmitigation>.

SUPPLEMENTARY INFORMATION:**I. Background**

Section 314 of the National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136) requires the Secretary of the Army, acting through the Chief of Engineers, to issue regulations "establishing performance standards and criteria for the use, consistent with section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344), of on-site, off-site, and in-lieu fee mitigation and mitigation banking as compensation for lost wetlands functions in permits issued by the Secretary of the Army under such section."

The statute states that the regulation should address wetlands compensatory mitigation. However, we believe that this regulation should apply to compensatory mitigation for all types of aquatic resources that can be impacted by activities authorized by Department of the Army permits, including streams and other open waters. We also believe that this regulation should apply to compensatory mitigation required for activities in navigable waters of the United States that are subject to regulatory jurisdiction under Sections 9 and 10 of the Rivers and Harbors Act of 1899. We believe this approach does not conflict with the intent of the statute, and will provide the regulated public with clear national standards and requirements for all aquatic resource compensatory mitigation required by Department of the Army permits, while

allowing district engineers flexibility to address permit-specific situations. We also believe this approach will enhance regulatory efficiency and improve protection of the aquatic environment.

The statute states that the regulation should be developed by the Department of the Army, with the provision that the standards and criteria developed be consistent with Section 404 of the Clean Water Act. We believe that the goals of the Clean Water Act and the Defense Authorization Act will be more effectively met if this proposed rule is issued jointly by the Corps and EPA. A jointly-issued proposed rule reflects the important roles played by both agencies in the Section 404 program, in which the permit program is administered by the Corps, while the responsibility for developing the regulations providing the environmental criteria for permit issuance is given to EPA. Since the proposed rule is in part a clarification of EPA regulations concerning Section 404 mitigation, a joint rule helps to ensure maximum consistency in the implementation of the section 404 regulatory program. Furthermore, CWA Section 501(a) authorizes EPA to conduct any rulemaking necessary to carry out EPA's functions under the Clean Water Act.

Joint issuance also provides basic regulatory consistency. Environmental criteria for the selection of disposal sites for discharges of dredged or fill material are set by EPA regulations at 40 CFR part 230, and referenced by Corps regulations at 33 CFR part 320. Since the proposed rule is in part a clarification of EPA's regulations at 40 CFR part 230, EPA must add the proposed rule text to its existing regulations in order to maintain consistency between the two linked Parts of the CFR. Making the two agencies' additions concurrent will avoid any confusion on the part of the regulated community and the public. Moreover, the history of a joint EPA/Corps relationship on mitigation issues is long. All national guidance on compensatory mitigation has been developed and issued jointly by the Corps and EPA, including Regulatory Guidance Letter 02-02 (issued on December 24, 2002); the "Federal Guidance for the Establishment, Use, and Operation of Mitigation Banks" (as published in the November 27, 1995, issue of the **Federal Register**, 60 FR 58605); the "Federal Guidance on the Use of In-Lieu Fee Arrangements for Compensatory Mitigation Under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act" (as published in the November 7, 2000, issue of the **Federal Register**, 65 FR

66914); and the "Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines" (issued on February 6, 1990).

We also believe the proposed rule establishes, to an extent that is feasible and practical, equivalent standards for all forms of compensatory mitigation, given the basic differences between the current mechanisms for providing compensatory mitigation (i.e., permittee-responsible mitigation, mitigation banks, and in-lieu fee programs). In many cases, it is not practical to impose all the same requirements on permittee-responsible mitigation projects as on mitigation banks, so some differences in the requirements for these types of mitigation remain. However, we are proposing to require in-lieu fee program sponsors to modify their programs within five years to comply with the same standards and requirements as mitigation banks, to provide greater assurances that compensatory mitigation projects undertaken by in-lieu fee programs will successfully replace lost aquatic resource functions and services. We are also seeking comment on alternative approaches that would retain in-lieu fee programs as a separate category of mitigation with somewhat different requirements. These alternatives are explained in further detail in Section VI of this preamble.

By establishing, to the maximum extent practicable, equivalent standards for all forms of compensatory mitigation, we believe success rates of compensatory mitigation projects will improve, and entrepreneurs and others will be encouraged to develop mitigation banks. Improving the processes applicable to the development and approval of mitigation banks is expected to result in more mitigation banking proposals, which would provide more compensatory mitigation in advance of authorized impacts to waters of the United States.

The proposed rule does not apply to compensatory mitigation that may be required for impacts other than to aquatic resources resulting from activities authorized by DA permits, such as impacts to historic properties. Under appropriate circumstances, a DA permit may require compensatory mitigation measures to ensure compliance with the Endangered Species Act or the National Historic Preservation Act, or to address some other public interest requirement. Those compensatory mitigation requirements

are addressed through other regulations and authorities.

During the development of the proposed rule, we considered the following compensatory mitigation guidance documents and lessons learned from their implementation: Regulatory Guidance Letter 02-02 (issued on December 24, 2002); the "Federal Guidance for the Establishment, Use, and Operation of Mitigation Banks" (as published in the November 27, 1995, issue of the **Federal Register**, 60 FR 58605); the "Federal Guidance on the Use of In-Lieu Fee Arrangements for Compensatory Mitigation Under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act" (as published in the November 7, 2000, issue of the **Federal Register**, 65 FR 66914); and the "Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines" (issued on February 6, 1990).

In preparing the proposed rule, we considered the findings and recommendations in the National Research Council's report issued in 2001 entitled "Compensating for Wetland Losses Under the Clean Water Act" (NRC Report). We also contemplated other studies and documents cited in the draft Environmental Assessment/Regulatory Analysis that was prepared by the Corps for this proposed rule. The Environmental Assessment/Regulatory Analysis is available at the Corps Headquarters Regulatory Home page at: <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/citizen.htm>. Hard copies of this document can be obtained by contacting Corps Headquarters at the phone number provided in the **FOR FURTHER INFORMATION CONTACT** section, above.

The proposed rule incorporates many of the recommendations suggested in the NRC Report to improve the ecological success and sustainability of wetland compensatory mitigation projects. Through the standards and requirements in this proposed rule, we intend to improve the quality and success of aquatic resource restoration, establishment, enhancement, and preservation activities used to provide compensatory mitigation for DA permits, and to help maintain and improve the aquatic environment within watersheds.

In the NRC Report, the committee concluded that a watershed approach would improve permit decision making, and stated that wetland functions must

be understood from a watershed perspective to fulfill the objectives of the Clean Water Act. The committee noted that an automatic preference for in-kind and on-site compensatory mitigation is inconsistent with a watershed approach since there are circumstances in which on-site or in-kind mitigation is neither practicable nor environmentally preferable. In addition, the committee suggested using an analytical process for assessing wetland needs within a watershed and the potential for compensatory mitigation projects to persist over time.

In the proposed rule, we revise compensatory mitigation policies and procedures to conform with current principles of ecological restoration and landscape ecology. The proposed rule also aims to reduce regulatory burdens on mitigation bank sponsors by making the mitigation bank approval process more efficient through changes in the review and approval process.

The proposed rule also complements the Corps' and EPA's ongoing efforts to implement the National Wetlands Mitigation Action Plan (NWMAP). In response to the NRC report and other independent critiques of the effectiveness of compensatory mitigation for authorized losses of wetlands and other aquatic resources under Section 404 of the Clean Water Act, the Corps, EPA, and the Departments of Agriculture, Commerce, Interior, and Transportation released the NWMAP on December 26, 2002. The NWMAP includes 17 tasks designed to improve the ecological performance and results of compensatory mitigation. Thus far, eight of the tasks called for in the NWMAP have been completed and work continues on efforts to improve wetland impact and mitigation data collection and tracking. However, work on the remaining guidance documents called for in the NWMAP awaits finalization of this proposed rule.

The proposed rule is consistent with Executive Order 13352, Facilitation of Cooperative Conservation. The proposed rule includes collaborative approaches to decision-making for compensatory mitigation required by DA permits consistent with the definition of cooperative conservation in the Order. The provisions of the rule will ensure that determinations regarding compensatory mitigation requirements take into account the interests of landowners and other legally recognized interests in land and other natural resources, and accommodate agency and local participation in federal decision-making.

II. General Principles in the Proposed Rule

For the purposes of the Corps Regulatory Program, compensatory mitigation is used to replace aquatic resource functions, services, and values that are lost to permitted impacts. Compensatory mitigation for losses of aquatic resources can help sustain or improve watershed functioning, and support the objective of the Clean Water Act, which is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. 1251(a)). One intent of the proposed rule is to improve the quality of compensatory mitigation for DA permits, to satisfy the objective of the Clean Water Act by improving the performance of compensatory mitigation projects in replacing aquatic resource functions, services, and values. Another intent of the proposed rule is to improve regulatory efficiency, especially for the review, approval, and implementation of mitigation banks. Finally, the proposed rule fulfills the mandate to ensure opportunities for federal agency participation in mitigation banking.

In addition to supporting the objective of the Clean Water Act, the proposed rule will support the "no overall net loss" goal for wetland acreage and functions, through appropriate site selection for wetlands compensatory mitigation projects. Locating compensatory mitigation projects where they will provide the desired habitat type and functions to appropriately offset impacts will support the "no overall net loss" goal for wetland acreage and function.

The proposed rule does not alter Corps regulations which address the general mitigation requirements for DA permits. In particular, it does not alter the circumstances under which compensatory mitigation is required. Also, the proposed rule does not alter Corps or EPA enforcement authorities for the section 404 program, as specified in sections 301(a), 308, 309, 404(n), and 404(s) of the Clean Water Act.

Site selection is a critical planning step for compensatory mitigation projects, and the watershed approach in the proposed rule is intended to focus on choosing appropriate locations for compensatory mitigation activities. Restoring or establishing a specific aquatic habitat type, such as a wetland, requires careful site selection for two primary reasons. First, development activities may alter the interaction between hydrology, soils, and organisms within a landscape, affecting the type of habitat that can be supported by the project site. For example, forested

wetlands require narrow hydrologic regimes because many tree species cannot tolerate long periods of inundation. Development activities may change local hydrology, resulting in new patterns of inundation and saturation that cannot support forested wetlands. Therefore, it is important to find a compensatory mitigation project site that will support the appropriate hydrology for the desired type of wetland habitat. Second, even if the desired habitat type can be restored or established at that site, surrounding development may result in an isolated or fragmented habitat that is less capable of supporting viable populations of species of import. Motile species require corridors to move between different habitats in the landscape, and if the surrounding area is occupied by roads and buildings, the ability of many species to move between habitats and interact with each other is restricted. Therefore, compensatory mitigation projects, especially those that are intended to replace wetland habitat, need to be planned within larger landscape contexts, such as watersheds. In its report on wetland compensatory mitigation, the NRC stated that "[l]andscape position, hydrologic variability, species richness, biological dynamics, and hydrologic regime are all important factors that affect wetland restoration."

For activities authorized by DA permits in coastal and urban areas, compensatory mitigation required by district engineers will be located in areas where it is appropriate and practicable to conduct aquatic resource restoration, establishment, and enhancement activities. It is important that coastal and other urban areas do not become devoid of aquatic resources simply because it is more difficult to successfully restore or establish aquatic habitat in developing areas. In some cases, however, preservation may be the most appropriate form of compensatory mitigation in coastal and urban areas. In addition to providing important ecological functions, wetlands and other aquatic resources also perform important services, such as wildlife viewing and education, that can only be accomplished when people have opportunities to interact with those aquatic resources. The functions and services that aquatic resources perform in turn provide the basis for the values that society derives from them. These include use values, such as recreation, and non-use values such as biodiversity and stewardship for future generations. Aquatic resource functions, services, and values should be considered when

evaluating sites in developed areas as options for providing compensatory mitigation. Mitigation projects for impacts authorized by DA permits should compensate for lost functions and services. While values are also considered as part of the public interest review, it is not always possible to fully compensate for lost values, as these are often dependent on proximity to population centers. Replacing aquatic resources at more remote locations may enhance some values (e.g., preservation of species) while decreasing others (e.g., recreational enjoyment).

Within a watershed context, it may be more appropriate to replace certain aquatic resource functions on-site, whereas it may be more appropriate to replace other functions off-site. For example, it may be environmentally preferable, to replace hydrologic and water quality functions at the impact site with a mitigation project that performs these functions, and to replace habitat functions at an off-site location, such as a mitigation bank or a compensatory mitigation project site near a park or nature reserve.

Through the watershed approach in the proposed rule, we intend to improve environmental outcomes of compensatory mitigation required for DA permits, including the effectiveness of compensatory mitigation in replacing impacted aquatic resource functions. The watershed approach uses a landscape perspective that places primary emphasis on site selection, through consideration of landscape attributes that will help provide the desired aquatic resource types and ensure they are self-sustaining. The watershed approach also considers how other landscape elements (e.g., other natural resources and developments) interact with compensatory mitigation project sites and affect the functions they are intended to provide.

In the proposed rule, the district engineer determines whether the compensatory mitigation option or proposal submitted by the permit applicant is adequate to offset unavoidable impacts, based on what is practicable and what will appropriately compensate for the aquatic resource functions and services that will be impacted as a result of the permitted activity. In pre-application consultation, the Corps may also provide information on existing watershed plans or watershed needs.

The proposed rule also establishes that the district engineer makes decisions regarding the approval of mitigation banking instruments, after coordinating a review of the prospectus for the proposed mitigation bank and

the draft mitigation banking instrument with an Interagency Review Team (IRT). We are proposing to establish clearly defined time frames for this review and a dispute resolution process whereby members of the IRT can expeditiously elevate issues associated with proposed mitigation banks for higher level review where necessary.

III. Watershed Approach

In the NRC Report, the committee recommended that the Corps adopt a watershed-based approach to compensatory mitigation. The committee stated that the ecological functions of a restored or established wetland are dependent on its design and its setting or context within a watershed. The committee also said that the types and locations of wetlands in the landscape are important for providing desired functions.

Ideally, the watershed approach is based on a formal watershed plan, developed by Federal, state, and/or local environmental managers in consultation with affected stakeholders. Currently, there are many areas where no watershed plan exists. The Corps and EPA are committed to working with our counterparts at other levels of government to develop watershed plans, especially for areas facing significant development pressure. In the meantime, the watershed approach described in the NRC Report does not require a formal watershed plan. Instead, the watershed approach may be based on a structured consideration of watershed needs and how wetland types in specific locations can fulfill those needs.

The use of a watershed approach is based on analysis of information regarding watershed conditions and needs. Where an applicable watershed plan exists, such information will generally already have been considered in the development of the plan. Where no such plan exists, project sponsors may propose compensatory mitigation based on the watershed approach using appropriate information from other sources. Such information includes: Current trends in habitat loss or conversion, cumulative impacts of past development activities, current development trends, the presence and needs of sensitive species, site conditions that favor or hinder the success of mitigation projects, chronic environmental problems such as flooding or poor water quality, and local watershed goals and priorities. Project sponsors should make a reasonable effort, commensurate with the scope and scale of the project and impacts, to obtain as much of this information as possible as they design the

compensatory mitigation projects. Project sponsors may consult with the Corps to see if such information has been developed in the past in association with other projects in the watershed. For smaller projects requiring DA authorization, all of the types of information listed above may not be available, but that information should generally be available (or developed) for larger projects.

The agencies request comment on whether the rule should specify minimal information requirements for use of the watershed approach. Commenters should bear in mind that specifying minimum information requirements will likely limit the areas where a watershed approach can be used, at least in the medium term, as much of the above information is currently not available for many areas. This problem was recognized by the NRC, which recommended that in such situations watershed based decision-making should rely on the scientific expertise of wetlands program staff (i.e., Corps permit writers and other Federal agency review staff) and broad-based stakeholder participation. As discussed below, the proposed rule includes a requirement that information on how a prospective permittee plans to address avoidance, minimization, and compensatory mitigation requirements be included in the permit application and published by the Corps in the public notice for the permit application. This requirement is intended to promote the kind of broad-based stakeholder involvement in watershed based mitigation decisions envisioned by the NRC Report.

A watershed approach to compensatory mitigation involves a regional or landscape perspective, and should involve consideration of Federal, Tribal, state, community, and private interests, including the requirements of other programs and objectives, such as habitat conservation, storm water management, flood control, pollution prevention, and economic development when determining compensatory mitigation requirements for DA permits.

The agencies note that the term "watershed approach" is now used by a variety of Federal, State, and local agencies, as well as by private parties, but a consensus definition of this term has not yet emerged. The watershed approach presented in this proposed rule is a framework being proposed for use in determining compensatory mitigation requirements for DA permits. The watershed approach described in the proposed rule does not supersede or replace other uses of the term "watershed approach" in natural

resource management programs conducted by other government agencies. We are soliciting comments on whether, and if so, how, the watershed approach in the proposed rule differs from the watershed approaches used in other natural resource management programs, and how any such differences may affect implementation of the watershed approach for determining compensatory mitigation requirements for DA permits.

The watershed approach in the proposed rule will be implemented by district engineers with available information to determine the types and locations of compensatory mitigation activities that would best serve the watershed. Available information used by district engineers includes current trends in habitat loss or conversion, cumulative impacts of past development activities, current development trends, the presence and needs of sensitive species, site conditions that favor or hinder the success of mitigation projects, chronic environmental problems such as flooding or poor water quality, local watershed goals and priorities, assessments of watershed conditions, best professional judgment, and site conditions, as well as other relevant data.

The watershed approach in the proposed rule will help support the objective of Clean Water Act, and is intended to result in more effective replacement of aquatic resource functions impacted by activities authorized by DA permits. The level of detail used in the watershed approach for a specific activity is dependent on the availability of information and on the scope and scale of that activity.

IV. Organization of the Proposed Rule

The proposed compensatory mitigation regulation in 33 CFR part 332 [40 CFR part 230], is organized into the following sections:

Section 332.1 [230.91], *Purpose and general considerations*, describes the basic purpose of the proposed rule and general principles concerning compensatory mitigation.

Section 332.2 [230.92], *Definitions*, provides definitions of important terms relating to compensatory mitigation and the Corps Regulatory Program.

Section 332.3 [230.93], *General compensatory mitigation requirements*, describes general compensatory mitigation requirements for DA permits, including permit conditions and financial assurances. This section also describes the watershed approach to compensatory mitigation.

Section 332.4 [230.94], *Planning and documentation*, describes the review of

proposed compensatory mitigation activities, as well as requirements for mitigation plans.

Section 332.5 [230.95], *Ecological performance standards*, describes principles for establishing ecological performance standards for compensatory mitigation projects.

Section 332.6 [230.96], *Monitoring*, describes general requirements for monitoring compensatory mitigation projects.

Section 332.7 [230.97], *Management*, describes general requirements for site protection, sustainability, adaptive management, and long-term management of compensatory mitigation projects.

Section 332.8 [230.98], *Mitigation banks*, provides requirements and standards that are applicable to mitigation banks.

Section 332.9 [230.99], *In-lieu fee programs*, establishes deadlines for existing in-lieu fee programs to modify their current agreements to comply with the requirements of this rule.

It is important to note that §§ 332.1 to 332.7 apply to all new compensatory mitigation projects, including mitigation banks, while §§ 332.8 and 332.9 contain special provisions for new mitigation banks and existing in-lieu fee programs, respectively. Existing mitigation banks may continue operating under the terms of their approved instruments, but any modifications to such instruments, including the addition of new sites for umbrella instruments, would be subject to the requirements in this rule. New in-lieu-fee programs would not be approved once the rule goes into effect. Existing in-lieu-fee programs may continue to operate under the terms of their approved instrument for up to five years after the effective date of the rule.

V. Discussion of Specific Sections of the Proposed Rule

The proposed rule is presented in two parallel sections: changes to Corps regulation in 33 CFR and changes to EPA regulation in 40 CFR. The two sections are almost entirely the same, with minor exceptions. These include: (1) Corps changes to permit application requirements at 33 CFR 325.1; (2) Conforming changes to EPA's existing mitigation regulations at 40 CFR part 230, making appropriate citations for the addition of new §§ 230.91 through 230.99; and (3) References to the Rivers and Harbors Act of 1899, in which the EPA does not have a regulatory role, have been omitted from the text in part 230.

33 CFR 325.1 Application for Permits

Since § 332.4(b)(1) of the proposed rule requires applicants for standard section 404 permits to submit a statement explaining how impacts to waters of the United States are to be avoided, minimized, and compensated, we are also proposing to modify § 325.1(d) by adding a new paragraph (paragraph (d)(7)). This new paragraph would further clarify the information required for a complete standard permit application for activities that involve discharges of dredged or fill material into waters of the United States, so that we can describe the proposed avoidance, minimization, and compensation in the public notice. The remaining paragraphs in this section would be renumbered, but the text of those paragraphs would remain the same.

40 CFR 230.12 Findings of Compliance or Non-Compliance With the Restrictions on Discharge

Section 230.12(a)(2) specifies that permits may only be issued if certain conditions are met that avoid, minimize, and compensate for impacts to aquatic resources. The proposed change would indicate that requirements for compensation for impacts can be found in Subpart J as well as Subpart H.

40 CFR Part 230 Subpart H—Actions To Minimize Adverse Effects

We propose to add a sentence to the introductory "Note" of Subpart H indicating that Subpart J also contains requirements regarding compensating for impacts to aquatic resources. At § 230.75(d), we propose to add a similar reference to Subpart J following the second sentence of the paragraph.

Other than the inclusion of the citations described above noting the addition of Subpart J, we are not seeking comment on the existing text or provisions in Subparts B or H.

33 CFR 332.1 and 40 CFR 230.91 Purpose and General Considerations

The proposed rule will not alter the circumstances under which the district engineers require compensatory mitigation. In other words, the threshold for determining when compensatory mitigation is required for a particular activity that needs a DA permit is unchanged by the proposed rule. For example, district engineers will continue to use the criteria at 33 CFR 320.4(r) and 33 CFR 330.1(e)(3) to determine when compensatory mitigation should be required. The proposed rule will not increase compensatory mitigation requirements, but it focuses instead on where and how

compensatory mitigation will be provided.

The proposed rule also does not affect regulatory jurisdiction under Section 404 of the Clean Water Act or Sections 9 and 10 of the Rivers and Harbors Act of 1899. However, areas not subject to regulatory jurisdiction under these statutes may be used as compensatory mitigation, if the creation, restoration, enhancement, or preservation of aquatic resources in those areas will compensate for ecosystem functions lost at the impact site.

33 CFR 332.2 and 40 CFR 230.92 *Definitions*

The definitions provided in this section of the draft rule are intended to provide clarity to the regulated public, and promote consistency in the implementation of this rule. The definitions were adapted from several sources, including the Federal guidance documents listed in the "Background" section in this preamble.

We are proposing a definition of the term "adaptive management" as follows. *Adaptive management* means the development of a management strategy that anticipates the challenges associated with likely future impacts to the aquatic resource functions of the mitigation site. It acknowledges the risk and uncertainty of compensatory mitigation projects and allows modification of those projects to optimize performance. The process will provide guidance on the selection of appropriate remedial measures that will ensure the continued adequate provision of aquatic resource function and involves analysis of monitoring results to identify potential problems of a compensatory project and identification of measures to rectify those problems.

In the September 2003 report of the National Environmental Policy Act (NEPA) Task Force, which is entitled "Modernizing NEPA Implementation," the NEPA Task Force recommended that the NEPA workgroup consider establishing a definition of adaptive management that would be promulgated in the NEPA regulations at 40 CFR part 1508. If a definition of "adaptive management" is promulgated by the Council on Environmental Quality (CEQ), we will evaluate our proposed definition of this term to determine if any changes are necessary to conform with CEQ's final definition. If such changes are necessary, we will propose those changes in a future **Federal Register** notice.

In the proposed definitions of "on-site," we are proposing to add the phrase "or near" after the phrase

"parcel of land contiguous to" to include lands near the impact site as "on-site" lands. We are also proposing a corresponding change to the definition of "off-site" so that these definitions are parallel to each other.

We are also proposing definitions of the terms "functions", "services", and "values." All three of these terms have been used by various documents in the past to describe the attributes of aquatic resources that are being replaced through compensatory mitigation. The agencies believe it is important to articulate the differences among these terms and the appropriate role of each within the Section 404 Program.

We are proposing the following definition of "functions." Functions means the physical, chemical, and biological processes that occur in aquatic resources and other ecosystems. The primary purpose of compensatory mitigation is to replace lost aquatic resource functions at the impact site. The agencies have a long standing policy of achieving no overall net loss for wetland acreage and functions. Services means the benefits that human populations receive from functions that occur in aquatic resources and other ecosystems. For example, providing habitat for birds is a biological function of some aquatic habitat types, which in turn provides bird watching services to humans. In general, compensatory mitigation projects, in replacing lost functions at the impact site, should also replace the lost services associated with these functions.

Values means the utility or satisfaction that humans derive from aquatic resource services. Values can be described in monetary terms or in qualitative terms, although many of the values associated with aquatic resources cannot be easily monetized. Values can be either use values (e.g., recreational enjoyment) or non-use values (e.g., stewardship ethic). Values are considered by the District Engineer as part of the public interest review of a proposed project. However, the values associated with compensatory mitigation projects may not fully mirror those lost at the impact site. For example, replacing a resource in a more remote area may reduce use values (because the area is less accessible) while enhancing non-use values (because people may value resources on stewardship grounds more when they are in more pristine areas). We are seeking comment on the definitions in this proposed rule, including the proposed definitions of "on-site", "off-site", "functions", "services" and "values."

33 CFR 332.3 and 40 CFR 230.93 *General Compensatory Mitigation* *Requirements*

This section of the proposed rule establishes criteria for determining the location and type of compensatory mitigation and describes the watershed approach to compensatory mitigation for losses of aquatic resources. When project impacts are located in the service area of an approved mitigation bank, and the mitigation bank has credits available for the type of resource impacted, the project's mitigation requirements may be met by the purchase of an appropriate number of credits from the mitigation bank. The use of a watershed plan is the most preferable option when evaluating permittee-responsible compensatory mitigation proposals and draft mitigation banking instruments. If a watershed plan is not available, the watershed approach described in § 332.3(c) should be used. If it is not practicable to use a watershed approach, then the district engineer will consider the practicability of on-site compensatory mitigation, as well as the compatibility of on-site mitigation with the proposed project. The watershed approach will identify resource types and locations for compensatory mitigation projects within the watershed. It is important to understand that a watershed approach may include on-site compensatory mitigation, off-site compensatory mitigation (including mitigation banks), or a combination of on-site and off-site mitigation. Also, the identified compensatory mitigation projects may be in-kind, out-of-kind, or a mixture of in-kind and out-of-kind compensatory mitigation.

The information used to conduct a watershed approach is listed in § 332.3(c)(3). Where a watershed plan exists, all or most of this information will have been considered in the development of that plan. Where no formal watershed plan exists, project sponsors should make a reasonable effort, commensurate with the scope and scale of the project, to obtain as much of this information as possible as they design the compensatory mitigation projects. Project sponsors may consult with the Corps to see if such information has been developed in the past in association with other projects in the watershed. For smaller projects requiring DA authorization, all of the types of information listed in this paragraph may not be available, but that information should generally be available (or developed) for larger projects.

We are seeking comment on the watershed approach proposed in this rule, as well as the proposed criteria regarding the location of compensatory mitigation projects.

The amount of required compensatory mitigation is dependent upon the functions (or area when functions cannot be readily assessed) lost as a result of the impacts authorized by the DA permit and the functions (or area) provided by the compensatory mitigation project. In some cases, replacing the functions provided by the impacted aquatic resource may be achieved by a compensatory mitigation project smaller in area than the impact site. In other cases, a larger compensatory mitigation project may be needed to replace the functions provided by the impacted aquatic resource.

To determine the amount of compensatory mitigation required for a specific activity, acres or similar units of measure are likely to be the principal units for determining credits and debits. However, 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. For activities authorized by general permits, it may not be practical to conduct functional assessments for each general permit activity. For certain types of aquatic resources, such as streams, it may be more appropriate to quantify credits and debits by using linear feet. The value of a credit or debit is dependent upon the amount of aquatic resource functions provided per acre (or linear foot).

In the proposed rule, site selection is a primary consideration for compensatory mitigation projects. The watershed approach provides an analytical approach similar to the approach recommended by the NRC committee. A watershed approach to compensatory mitigation considers the importance of landscape position and resource type for the ecological functions and sustainability of aquatic resources within the watershed. A watershed approach also considers the services provided by aquatic resources, as well as the values derived from aquatic resource functions and services. Such an approach considers how the types and locations of compensatory mitigation projects will provide the desired aquatic resource functions, and will continue to function over time in a changing landscape. It also considers the habitat requirements of important species, habitat loss or conversion

trends, sources of watershed impairment, and current development trends, as well as the requirements of other regulatory and non-regulatory programs that affect the watershed, such as storm water management or habitat conservation programs.

Another site selection factor is the compatibility of compensatory mitigation projects with proposed or existing facilities or projects. For example, it is not appropriate to locate compensatory mitigation projects designed to attract wildlife species that are known to be hazardous to aviation near airports. The Federal Aviation Administration issued Advisory Circular 150/5200-33, "Hazardous Wildlife Attractants on or Near Airports." In addition, the "Memorandum of Agreement Between the Federal Aviation Administration, U.S. Air Force, U.S. Army, U.S. Environmental Protection Agency, and U.S. Department of Agriculture to Address Aircraft Wildlife Strikes, which became effective in July 2003, also addresses this particular issue. District engineers need to consider these types of issues when determining compensatory mitigation requirements for DA permits (see § 332.3(b) of the proposed rule).

If the district engineer determines that all of the aquatic resource functions cannot be effectively replaced at a single site, then more than one site may be used to provide the desired aquatic resource functions. Therefore, to maintain aquatic resource functions in a watershed, the district engineer may require a combination of on-site and off-site compensatory mitigation. For example, on-site compensation may be required to provide water quality, water storage, and flood protection functions and services, while off-site compensation may be required for losses of habitat functions. In general, the proposed rule requires off-site compensatory mitigation to be located in the same watershed as the impact site.

The proposed rule generally requires wetland compensatory mitigation for wetland losses, and stream compensatory mitigation for stream losses. However, the proposed rule provides flexibility for district engineers to require compensatory mitigation that is best for the watershed. For example, out-of-kind compensatory mitigation may involve the restoration or establishment of an aquatic habitat type that is now rare, because of disproportionate impacts to that habitat type in the past. Restoring or establishing rare habitat types may help restore valuable ecological functions

and services to the watershed. In the watershed approach in the proposed rule, district engineers will first consider in-kind compensatory mitigation, but if the watershed approach determines that out-of-kind compensatory mitigation would result in greater benefits to the aquatic environment within the watershed, then out-of-kind compensation may be authorized.

The NRC Report stated that the preservation of wetlands is appropriate in a watershed approach to compensatory mitigation, because it helps support the objective of the Clean Water Act. Preservation of aquatic resources helps secure desired wetland types in a watershed and maintain wetland diversity in that watershed. The preservation of aquatic resources through appropriate real estate and legal instruments helps provide long-term maintenance of the aquatic environment in watersheds.

Both wetland and non-wetland riparian areas are also important for maintaining the aquatic resource functions and services of watersheds. Riparian areas are important for stream restoration activities, as well as the restoration of other open waters. Riparian areas are important to streams and other open waters, and help augment aquatic resource functions by moderating temperature changes, removing excess nutrients and pollutants, providing a source of detritus for aquatic food webs, providing aquatic habitat heterogeneity, storing flood waters, stabilizing sediments, and providing habitat for a variety of aquatic and terrestrial species.

Restoration or establishment of non-aquatic riparian areas normally would be used in conjunction with aquatic resource restoration, establishment, enhancement, and/or preservation activities, as part of an overall compensatory mitigation project to offset losses of aquatic resources. With the watershed approach, we are looking at combinations of different habitats as components of a functioning landscape, instead of habitat units in isolation from one another.

The NRC Report also acknowledged the importance of upland areas as part of the watershed approach to compensatory mitigation. The proposed rule also requires consideration of the establishment and maintenance of upland buffers around the restored, established, enhanced, or protected aquatic habitats to ensure the sustainability of those habitats. Buffers may augment aquatic resource functions, and help increase the overall ecological functions of the

compensatory mitigation project site. Under limited circumstances, 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. For example, uplands may provide connections between aquatic habitats that are essential for the preservation of certain species, such as amphibians. When determining the amount of compensatory mitigation credit provided by uplands, the district engineer must consider whether the uplands perform ecological functions that are important to the watershed and are under threat of loss or substantial degradation.

The proposed rule requires that mitigation providers secure sufficient financial assurances to assure completion of the compensatory mitigation project consistent with an approved mitigation plan. Government agencies may use other mechanisms to provide reasonable assurances that compensatory mitigation projects will be completed, such as partnerships established in accordance with the Economy Act. In cases where alternative mechanisms are used to provide reasonable assurances that compensatory mitigation projects will be completed, financial assurances may not be necessary or appropriate. The district engineer will determine appropriate financial assurances on a case-by-case basis. Financial assurances may take a number of forms including letters of credit, performance bonds, or other sureties. In some circumstances in the past, mitigation providers have allowed their financial assurance arrangements to lapse before the mitigation project was completed leaving the Corps without the necessary funds to ensure completion of the mitigation project should the mitigation provider default. The proposed rule does not specifically address this issue. We are soliciting comment on whether to include a regulatory provision to require that the providers of these financial assurances obtain permission from, or alternatively, notify the district engineer prior to canceling them or allowing them to lapse. We are also soliciting comment on the appropriate time frame (e.g., 120 days) for any such advance notification.

If failure of a compensatory mitigation project is due to natural catastrophes, such as floods, droughts, diseases, or pest infestations, that occur during the monitoring period, the district engineer

normally would require the responsible party to implement appropriate remedial measures, unless the compensatory mitigation project is expected to respond to the event in a similar manner as comparable types of aquatic resources in the watershed. After the monitoring period has ended, the district engineer would normally not require remediation if he determines that the failure is due to a natural catastrophe that was beyond the control of the responsible party to prevent or mitigate. In such cases, the provisions of the conservation easement (or other legal mechanism for long-term protection of the site) will remain in effect so that the compensatory mitigation project site will be allowed to continue to evolve through natural ecosystem development processes. This approach to addressing natural catastrophes acknowledges the dynamic nature of the environment.

We are seeking comment on the provisions in this section.

33 CFR 332.4 and 40 CFR 230.94 Planning and Documentation

In paragraph (b) of this section, we are proposing to require applicants for standard permits involving discharges of dredged or fill material into waters of the United States to submit a statement explaining how impacts to waters of the United States will be avoided, minimized, and compensated. Information from that statement will be provided in the public notice for the proposed permit. This requirement will necessitate changing the standard permit application form (ENG Form 4345), and compliance with the requirements of the Paperwork Reduction Act of 1995. Compliance with the Paperwork Reduction Act is discussed in more detail in Section VII, Administrative Requirements, below.

The agencies recognize that government agencies sponsoring projects that require National Environmental Policy Act (NEPA) compliance generally try to coordinate their NEPA review with their DA permit review. This may mean submitting a permit application while the draft Environmental Impact Statement (EIS), including analysis of compensatory mitigation options, is still undergoing public review and comment. We believe that the requirements of paragraph (b) of this section are fully consistent with such efforts. In such cases, the information provided with the permit application should provide a conceptual discussion of the proposed compensatory mitigation, and reference the more detailed description of options in the draft EIS. This should further

facilitate public participation in both the permit application and NEPA review process. The purpose of the new permit application requirements is to inform the public of the sponsor's compensatory mitigation plans, as of the time the application is filed, and most importantly, to solicit informed public comment on those plans, in whatever stage of development they may be. It is not necessary for the final compensatory mitigation option to have been selected prior to submitting a DA permit application.

Paragraph (c) of this section of the proposed rule requires permittees or mitigation bank sponsors to submit draft and final mitigation plans to district engineers. In the proposed rule, there is a requirement for the district engineer to approve the final mitigation plan prior to issuing the DA permit or approving the mitigation banking instrument.

This section also lists the types of information to be provided in draft and final mitigation plans. Permittees proposing to use a mitigation bank to provide required compensatory mitigation would be required to submit only information concerning the mitigation bank they plan to use, project baseline information, and credit determinations.

We are seeking comment on the provisions in this section.

33 CFR 332.5 and 40 CFR 230.95 Ecological Performance Standards

This section discusses, in general terms, ecological performance standards that will be used to assess whether compensatory mitigation projects, including mitigation banks, are achieving their objectives. Since ecological performance standards usually vary by aquatic type and geographic region, this section provides only general considerations for establishing those standards.

We are seeking comment on the provisions in this section.

33 CFR 332.6 and 40 CFR 230.96 Monitoring

This proposed rule provides general standards for monitoring compensatory mitigation projects, including mitigation banks. Monitoring reports are used for assessing how well the compensatory mitigation project is satisfying its objectives. We are proposing a minimum required monitoring period of five years, with flexibility for district engineers to stop requiring monitoring reports if compensatory mitigation projects, such as those involving the establishment of open water habitats, meet their performance standards in a shorter period of time. Longer

monitoring periods may be required for compensatory mitigation activities, such as the establishment of forested wetlands, that develop slowly, or that require remediation.

We are seeking comment on the provisions in this section. We are also requesting comment on examples of specific types of compensatory mitigation projects (e.g., specific habitat types) where monitoring periods of less than five years may be appropriate.

33 CFR 332.7 and 40 CFR 230.97 Management

This section of the proposed rule establishes criteria and standards for the management of compensatory mitigation projects, including mitigation banks. Some compensatory mitigation projects may require active management and maintenance, as well as adaptive management. For some aquatic resources, such as fringe wetlands in coastal areas, long-term management may not be feasible or desirable because of the dynamic nature of the environment.

The various real estate or legal instruments that can be used to protect compensatory mitigation project sites may differ from state to state, or among other government jurisdictions. Therefore, we are not proposing detailed requirements for real estate instruments used for long-term protection of compensatory mitigation project sites. We believe those instruments are best addressed by district engineers on a case-by-case basis.

For compensatory mitigation projects on public lands, other long-term protection mechanisms may be more appropriate, such as Federal facility management plans or integrated natural resources management plans. Therefore, this section of the proposed rule has flexibility for district engineers to determine requirements for site protection on a case-by-case basis. The agencies recognize that changes in statute, regulation or agency needs or mission may sometimes necessitate authorization of an incompatible use on public lands originally set aside for compensatory mitigation. In such cases, the public agency authorizing the incompatible use would be responsible for providing alternative compensatory mitigation for any loss in functions resulting from the incompatible use.

Paragraph (c) of this section discusses remediation requirements if a compensatory mitigation project is not progressing towards meeting its performance standards. In addition to consulting with the responsible party to determine appropriate remediation requirements, the district engineer

should also consult with any other Federal, Tribal, state, or local agency "where appropriate." In general, such consultation would be appropriate if the other agency was involved earlier in the review of the compensatory mitigation requirements in the DA permit.

The proposed rule requires that the permit conditions or mitigation banking instrument identify the party responsible for the ownership and long-term management of the compensatory mitigation project. The permittee or mitigation bank sponsor must provide long-term financing as necessary to ensure that funds are available for the long-term management of the project site once the monitoring period is over. This can be accomplished in a number of ways, but in the past problems have arisen when arrangements for the capitalization of long-term management funds have not taken place in a timely fashion. Although the rule text does not address this deficiency, we are soliciting comments on the inclusion of a provision that would require that the arrangements for the adequate capitalization of long-term management funds be finalized prior to permit issuance.

If the entity responsible for long-term management is a government agency or public authority, and that entity is willing to accept the stewardship responsibilities for the compensatory mitigation project site, the district engineer may accept the stewardship commitment by the government agency or public authority in lieu of imposing long-term financing requirements in the DA permit or mitigation banking instrument. Such acceptance of stewardship responsibilities will generally involve a formal transaction of some type (e.g., transfer of title, designation as a protected area, etc). We are aware of situations where government agencies have accepted stewardship responsibilities without adequately considering long-term financial needs for the management of a site, and strongly encourage agencies to plan for such needs before accepting stewardship responsibilities. Such planning may include requiring a financial commitment from the original responsible party as a condition of accepting long-term stewardship responsibilities.

We are seeking comment on the provisions in this section.

33 CFR 332.8 and 40 CFR 230.98 Mitigation Banks

The proposed rule establishes criteria and standards for mitigation banks, including requirements and processes for the review, approval, and oversight

of those banks. We are seeking comment on all provisions of this section, especially the timeframes and milestones for mitigation bank review and approval.

The proposed rule contains explicit requirements for the mitigation bank prospectus, and requires the district engineer to notify the sponsor within 15 days if the prospectus is incomplete. The proposed rule also has requirements for the content of mitigation banking instruments.

The district engineer is responsible for the review and approval of mitigation banks that are intended to be used to provide compensatory mitigation for DA permits, after seeking comment from the Interagency Review Team (IRT) and the public. The role of the IRT is to advise the district engineer on the establishment and management of mitigation banks. Representatives of the U.S. Environmental Protection Agency, National Marine Fisheries Service, and U.S. Fish and Wildlife Service hold ex officio positions on the IRT. Beyond this, the district engineer determines the composition of the IRT. The IRT in the proposed rule replaces the Mitigation Bank Review Team (MBRT) in the 1995 mitigation banking guidance.

Each proposed mitigation bank will be subject to a public notice and comment process, regardless of whether a DA permit is required to construct or establish the mitigation bank. In the proposed rule, we are specifying formal procedures and timeframes for establishing mitigation banks, to provide more predictability and efficiency to the mitigation bank review and approval process.

In general, the timelines provided in this section of the proposed rule should result in a decision on the proposed mitigation bank within one year of receipt of a complete prospectus. However, there may be exceptional circumstances associated with a particular proposed mitigation bank that may result in a longer review period.

The district engineer, in consultation with the IRT and using a watershed approach to the extent practicable, will determine the service area of an approved mitigation bank. The service area of a mitigation bank is to be described in the mitigation banking instrument. The service area should be large enough to support an economically viable mitigation bank, but must not be larger than is appropriate to ensure that the aquatic resources provided by the mitigation bank will effectively compensate for adverse environmental impacts across the entire service area. In

§ 332.8(c)(5)(ii), we provide some guidelines for service areas based on the hydrologic unit codes designated by the U.S. Geological Survey. The service areas suggested in the text of this section may not be appropriate for some mitigation banks, such as single-user mitigation banks sponsored by state departments of transportation. For these sponsors, it may be infeasible to have relatively small service areas for their mitigation banks, such as those based on 8-digit hydrologic unit codes, because they incur a relatively small amount of debits per year. Also, having relatively small service areas for some single user mitigation banks may discourage the establishment of large mitigation banks that provide substantial amounts of habitat and other aquatic resource functions and services. On the other hand, in areas with significant development, service areas even smaller than an 8-digit hydrologic unit code may be appropriate.

We are proposing a dispute resolution process to resolve agency concerns about proposed mitigation banks. The dispute resolution process involves higher levels of review, up to the respective agency headquarters. We are seeking comment on the milestones and timeframes in the proposed dispute resolution process. It is intended as a last resort for significant issues that cannot be resolved in a timely manner within the IRT. The agencies anticipate that it will be used infrequently.

In cases where initial establishment of the mitigation bank requires authorization through a DA permit, it is important that the permit be fully consistent with the provisions of the mitigation banking instrument. Issuing the permit before all relevant provisions of the mitigation banking instrument have been substantively determined may lead to inconsistencies between the permit and the instrument and/or may constrain the district engineer's ability to address substantive concerns that arise through the IRT review process. Where issues potentially affecting permit conditions are still unresolved within the IRT, the district engineer should delay permit issuance until the final terms of the mitigation banking instrument have been determined.

We are proposing to establish a process for modifying mitigation banking instruments. For example, a mitigation banking instrument may be modified if the mitigation bank develops aquatic resource functions that are substantially greater than expected, to allow the sponsor to sell those extra credits after achieving all performance standards specified in the bank's instrument. The full IRT review process

would be used for major modifications to the mitigation banking instrument, such as expanding the mitigation bank by conducting more aquatic resource restoration, establishment, enhancement, and/or preservation at the bank site. Certain types of minor modifications to instruments, such as changes in credit release schedules, may be accomplished through a streamlined modification process.

Umbrella mitigation banking instruments, which have been used to establish mitigation banks on multiple sites, are provided for in the proposed rule with additional sites treated as modifications of the original mitigation banking instruments. In the proposed rule, a mitigation banking instrument would have to be approved for the initial mitigation bank site, and subsequent mitigation bank sites under the "umbrella" instrument would be added to that instrument as major modifications.

The proposed rule also establishes criteria for credit release from mitigation banks. A limited proportion of projected credits may be released when the mitigation banking instrument and mitigation plan have been approved, the bank site secured, and required financial assurances have been established. The proposed rule also requires a substantial proportion of credits to be released only after performance standards are achieved. Criteria for determining the credit release schedule are provided in the text of the proposed rule. District engineers must also approve credit releases.

Existing mitigation banks may continue operating under the terms of their approved instruments. However, modifications to the instrument, including the addition of new sites for umbrella instruments, must be made in accordance with the requirements of Part 332. We are also seeking comment on the appropriate legal mechanism for transferring the responsibility for providing compensatory mitigation from the permittee to a mitigation bank. One option would be through parallel provisions in DA permit special conditions and mitigation banking instruments. Therefore, we are seeking comment on the following language for a special condition for a DA permit to transfer responsibility for providing compensatory mitigation in cases where credits are secured from a mitigation bank:

"You have agreed to provide compensatory mitigation for the permitted impacts by purchasing credits at [INSERT NAME OF MITIGATION BANK]. As compensation for impacting [INSERT NUMBER] acres [OR OTHER UNIT OF MEASURE] of [INSERT

AQUATIC RESOURCE TYPE], a total of [INSERT NUMBER] credits must be acquired from the [INSERT NAME OF MITIGATION BANK]. Upon the mitigation bank sponsor's acceptance of payment for those credits, that compensatory mitigation requirement will be considered fulfilled, and your responsibility for providing that compensatory mitigation will be transferred to the [INSERT NAME OF MITIGATION BANK]. Proof of securing these compensatory mitigation credits must be provided to this office prior to initiating any work in waters of the United States on the project site, unless the district engineer waives this requirement. If you cannot obtain the required amount and type of credits from [INSERT NAME OF MITIGATION BANK], you must submit a revised compensatory mitigation proposal to this office, and receive approval of the revised compensatory mitigation plan, prior to initiating any work in waters of the United States."

We are also seeking comment on the following language for a mitigation banking instrument, whereby the mitigation bank would then accept responsibility for providing compensatory mitigation for a DA permit in cases where the permittee secures credits from that mitigation bank sponsor:

"For projects in the service area of this Mitigation Bank that require Department of the Army authorization pursuant to Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899, and if such authorizations require compensatory mitigation, credits from this Mitigation Bank may be used to satisfy those compensatory mitigation requirements, subject to Corps approval on a case-by-case basis.

In accordance with the terms of this Instrument, the sponsor agrees that upon Corps approval of a proposal by the Permittee to secure mitigation bank credits through a contract with this Mitigation Bank, a fully executed contract between the Sponsor and the Permittee shall act to transfer to this Mitigation Bank all responsibility for the compensatory mitigation required by the permittee's DA permit."

We are also seeking comment on other possible mechanisms for transferring legal responsibility for providing compensatory mitigation from the permittee to a mitigation bank. One potential mechanism may be co-permitting, where the mitigation bank sponsor would sign the DA permit and assume responsibility for providing compensatory mitigation credits, once the permittee has secured those credits from the mitigation bank. The compensatory mitigation provisions of the permit (and those provisions only) would then be directly enforceable against the mitigation bank sponsor using normal Clean Water Act enforcement authorities. The agencies seek comment on these and other mechanisms for transferring legal responsibility for providing

compensatory mitigation from the permittee to the mitigation bank sponsor.

In addition to the Corps, other Federal agencies (as well as some state agencies) have, in the past, signed mitigation banking instruments to indicate their agreement with the terms of those instruments. Since district engineers are responsible for approving instruments for mitigation banks, as well as for approving the use of credits from those banks as compensatory mitigation for specific DA permits, we are seeking comment on whether the provisions in § 332.8(b)(3) relating to other IRT members signing mitigation banking instruments are appropriate. In particular, do, or should, the signatures of other agencies have any legal effect in the implementation and enforcement of the banking instrument?

33 CFR 332.9 and 40 CFR 230.99 In-Lieu Fee Programs

Since we are proposing to require in-lieu fee programs after five years to comply with the same criteria, requirements, and standards as mitigation banks, we believe there is a need for a grandfathering provision for current in-lieu fee programs. We are seeking comments on this section, in particular the proposed time frames. Section VI below explains our rationale for phasing out in-lieu fee programs and discusses possible alternative approaches.

VI. In-Lieu Fee Programs/Arrangements

Under the proposed rule, existing in-lieu fee programs would have to be modified within five years to meet the requirements for mitigation banks in 33 CFR 332.8 and 40 CFR 230.98 in order to continue to provide compensatory mitigation credits for DA permits. In other words, after five years, in-lieu fee programs would cease to exist as a separate mechanism for providing compensatory mitigation. As of the effective date of the rule, new programs would have to meet the requirements in 33 CFR 332.8 and 40 CFR 230.98 in order to sell credits. Current in-lieu fee programs with multiple sites could develop umbrella mitigation banking instruments (see 33 CFR 332.8(g) and 40 CFR 230.98(g) of the proposed rule).

Under current practice, there are several important differences between in-lieu fee programs and mitigation banks. First, in-lieu fee programs are generally administered by state governments, local governments, or non-profit non-governmental organizations while mitigation banks are usually (though not always) operated for profit by private entities, at least those

that are third-party mitigation providers. Second, in-lieu fee programs rely on collected fees from permittees to initiate compensatory mitigation projects while mitigation banks usually rely on private investment for initial financing. Most importantly, mitigation banks must achieve certain milestones, including site selection, plan approval, and financial assurances, before they can sell credits, and generally sell a majority of their credits only after the mitigation has been provided. In contrast, in-lieu fee programs generally provide mitigation only after collecting fees, and there is often a substantial time lag between permitted impacts and implementation of compensatory mitigation projects. In-lieu fee programs are also not generally required to provide the same financial assurances as mitigation banks. For all of these reasons, in some cases there may be greater uncertainty associated with in-lieu fee programs regarding the final mitigation and its adequacy to compensate for lost functions and services. On the other hand, some in-lieu fee programs have been able to protect high quality aquatic resources under threat of imminent impact, to employ a conservation strategy that is consistent with the watershed approach discussed in § 332.3(c) of the proposed rule, and to partner with government agencies and non-profit non-governmental organizations to maximize protection of those at-risk resources. In-lieu fee programs may also be able to provide effective compensatory mitigation in certain areas, such as coastal areas, where options for economically viable mitigation banks are limited.

The 2004 National Defense Authorization Act directs that, "To the maximum extent practicable, the regulatory standards and criteria shall maximize available credits and opportunities for mitigation * * * and apply equivalent standards and criteria to each type of compensatory mitigation." The agencies carefully considered this directive in developing the proposed rule. Based on this consideration, the agencies believe that the proposed requirements for mitigation banks are necessary and sufficient to ensure that third-party compensatory mitigation is actually completed, while also balancing the need to make mitigation banking economically viable and thus "maximize available credits." The agencies are concerned that providing less stringent oversight or up-front requirements for in-lieu fee programs may not ensure that compensatory

mitigation is actually performed, or satisfy the statutory directive to apply equivalent standards and criteria to each type of mitigation to the maximum extent practicable. The agencies recognize that the proposed requirements for permittee-responsible mitigation are not exactly the same as those for mitigation banks, though we have tried to harmonize them to the extent practicable. But there are certain requirements, such as formal review by an IRT, that are not practicable for permittee-responsible projects, particularly smaller ones. However, for in-lieu fee programs, which as third-party mitigation providers sell credits to permittees and take on responsibility for providing required compensatory mitigation in the same way that mitigation banks do, we have not found strong grounds for concluding that meeting the same requirements as mitigation banks is not appropriate and practicable.

Another concern with in-lieu fee programs is the sale price of credits. Because credits are often sold before the details (or even the location) of a specific compensatory mitigation project have been determined, it may be difficult for the project sponsor to determine a price that will fully fund the future compensatory mitigation project. Because the market pressure of needing to provide a sufficient return to investors is missing, in-lieu fee sponsors may underestimate the credit price, and perhaps undercut a mitigation bank doing business in the same service area. Furthermore, it is difficult for the Corps to determine what an adequate price might be in the absence of definitive information about the location and type of mitigation project to be provided.

The agencies realize that phasing out in-lieu fee programs entails some challenges. In some areas, there are no mitigation banks and in-lieu fee programs provide the only option for third-party mitigation. However, the agencies are concerned that this may to some extent reflect the less stringent requirements under which in-lieu-fee programs currently operate. The agencies believe that if in-lieu fee programs are required to meet the same requirements as banks, this will provide a level playing field that will allow mitigation banks to compete in areas where this may not be currently possible. We also recognize that in areas with a "thin" market (e.g., areas where there is a low density of dredge and fill projects requiring compensatory mitigation) it may not be economically viable to obtain the level of up-front financing that is necessary to start a mitigation bank. This concern can be at

least partially addressed through the size of the mitigation bank's service area. Proposed § 332.8(5)(ii) provides that the service area "should be large enough to support an economically viable mitigation bank, but must not be larger than is appropriate to ensure that the aquatic resources provided by the mitigation bank will effectively compensate for adverse environmental impacts across the entire service area."

The agencies recognize that phasing out in-lieu fee programs would represent a substantial departure from current practice. We are aware that there are a number of successful in-lieu fee programs that are providing effective compensatory mitigation. We therefore request comment on the challenges associated with transforming these projects into mitigation banks over a five-year period. We also request comment on retaining in-lieu fee programs as a distinct regulatory entity. Under this approach, in-lieu fee programs would have equally specific, but somewhat different, requirements from mitigation banks. Areas in which in-lieu fee programs might be different include: (1) The degree of up-front planning required before credits could be sold (e.g., in-lieu fee programs might not be required to identify and secure a site and provide detailed site plans for the compensatory mitigation project); (2) the level of financial assurances that would be required, although we note that under the proposed rule district engineers retain substantial discretion in determining appropriate financial assurances for banks, and may consider factors such as the type of sponsoring entity (e.g., government, private, non-profit); (3) the types of projects for which they could be used (e.g., in-lieu fee programs might be limited to providing compensatory mitigation only for nationwide permits and other general permits, or for projects below a specified acreage cutoff, such as 1 acre); (4) the required compensation ratios (e.g., these could be higher for in-lieu fee programs than for mitigation banks); (5) the credit release schedule (e.g., in-lieu fee programs might be permitted to sell more credits at an earlier point in the planning process); (6) limiting the establishment and use of in-lieu fee programs to specific types of aquatic resources (e.g., tidal wetlands) or specific geographic regions, such as coastal areas; and (7) the types of permitted sponsoring entities (i.e., in-lieu fee programs might be limited to government agencies and/or non-profit land stewardship entities with proven track records). Commenters may suggest other ways in which the requirements

for in-lieu fee programs might be different from those for mitigation banks.

Another option would be to retain in-lieu fee programs but provide a "preference" for in-place compensatory mitigation (e.g., compensatory mitigation sites such as mitigation banks established in advance of permitted impacts) over compensatory mitigation that would be established after permitted impacts are authorized (e.g., many in-lieu fee programs) because of their greater certainty of successfully providing compensatory mitigation credits. Under this approach, if the permitted project was in the service area of both an established mitigation bank and an in-lieu fee project that had not been constructed, the permittee would first have to consider purchasing credits from the mitigation bank, and could only use the in-lieu fee program if purchasing credits from the mitigation bank was not practicable.

Comments will be most helpful if they provide specific information. Current in-lieu fee program sponsors should explain exactly what difficulties they would experience in transitioning to a mitigation bank. Commenters who support retaining in-lieu fee programs as a distinct regulatory entity should explain exactly what requirements would be different from those for mitigation banks, and what would be the basis for establishing these different requirements in light of the statutory directive noted above. The agencies believe that the detailed discussion of issues and options in this preamble provides sufficient notice and opportunity for informed public comment, such that we may choose to finalize a rule that retains a separate in-lieu fee option along the lines discussed here without issuing a new proposed rule.

VII. Administrative Requirements

Plain Language

In compliance with the principles in the President's Memorandum of June 1, 1998, (63 FR 31855) regarding plain language, this preamble is written using plain language. The use of "we" in this notice refers to the Corps and EPA. We have also used the active voice, short sentences, and common everyday terms except for necessary technical terms.

Paperwork Reduction Act

This proposed action will impose a new information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). Applicants for Clean Water Act section 404 permits will be required, under 33

CFR 332.4(b)(1) and 40 CFR 230.93(b)(1) of the proposed rule, to submit a statement explaining how impacts associated with the proposed activity are to be avoided, minimized, and compensated for. This statement must also include a description of any proposed compensatory mitigation, or the intention to use an approved mitigation bank.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. For the Corps Regulatory Program under Section 10 of the Rivers and Harbors Act of 1899, section 404 of the Clean Water Act, and section 103 of the Marine Protection, Research and Sanctuaries Act of 1972, the current OMB approval number for information collection requirements is maintained by the Corps of Engineers (OMB approval number 0710-0003, which expires on April 30, 2008). As a result of the new information collection requirement in the proposed rule, we are proposing to modify our standard permit application form in accordance with the requirements of the Paperwork Reduction Act.

Title, Form, and OMB Number: Application for a Department of Army Permit; Eng Form 4345; OMB Control Number 0710-0003.

Type of Request: Revision.

Number of Respondents: 85,500.

Responses Per Respondent: 1.

Annual Responses: 85,500.

Average Burden Per Response: 11 hours.

Annual Burden Hours: 374,000.

Needs and Uses: Information collected is used to evaluate, as required by law, proposed construction or filing in waters of the United States that result in impacts to the aquatic environment and nearby properties, and to determine if issuance of a permit is in the public interest. Respondents are private landowners, businesses, non-profit organizations, and government agencies.

Affected Public: Individuals or households; business or other for-profit; not-for-profit institutions; farms; Federal government; State, local or tribal government.

Frequency: On occasion.

Respondents Obligation: Mandatory.

OMB Desk Officer: Jim Laity.

Written comments and recommendations on the proposed information collection should be sent to Jim Laity at the Office of Management and Budget, Desk Officer for USACE, Room 10202, New Executive Office Building, Washington, DC 20503.

Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether the regulatory action is “significant” and therefore subject to review by OMB and the requirements of the Executive Order. The Executive Order defines “significant regulatory action” as one that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, we have determined that the proposed rule is a “significant regulatory action” and the draft was submitted to OMB for review.

The regulatory analysis required by E.O. 12866 has been prepared for this proposed rule. The regulatory analysis is available on the Internet at: <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/citizen.htm>. It is also available by contacting Headquarters, U.S. Army Corps of Engineers, Operations and Regulatory Community of Practice, 441 G Street, NW., Washington, DC 20314–1000.

Executive Order 13132

Executive Order 13132, entitled “Federalism” (64 FR 43255, August 10, 1999), requires the Corps to develop an accountable process to ensure “meaningful and timely input by State and local officials in the development of regulatory policies that have Federalism implications.” The proposed rule does not have Federalism implications. We do not believe that the proposed rule will have substantial direct effects on the States, on the relationship between the Federal government and the States, or on the distribution of power and responsibilities among the various levels of government. The proposed rule does not impose new substantive requirements. In addition, the proposed rule will not impose any additional substantive obligations on State or local governments. State and local

governments that administer in-lieu fee programs to provide compensatory mitigation for impacts to wetlands and other aquatic resources can modify their in-lieu fee programs to conform with the requirements of this proposed rule. Therefore, Executive Order 13132 does not apply to this proposed rule. However, in the spirit of Executive Order 13132, we specifically request comment from state and local officials on the proposed rule.

Regulatory Flexibility Act, as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. 601 et seq.

The Regulatory Flexibility Act generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice-and-comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations and small governmental jurisdictions.

For purposes of assessing the impacts of this proposed rule on small entities, a small entity is defined as: (1) A small business based on Small Business Administration size standards; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

The statutory basis for the proposed rule is Section 314 of the National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136), which is discussed above. After considering the economic impacts of the proposed rule on small entities, we certify that this action will not have a significant impact on a substantial number of small entities. Small entities subject to the proposed rule include those small entities that need to obtain DA permits pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899.

This rulemaking will not change compensatory mitigation requirements, or change the number of permitted activities that require compensatory mitigation. This rule further clarifies mitigation requirements established by Corps and EPA, and is generally consistent with current agency practices. Some provisions of the rule may result in increases in compliance costs, other provisions may result in

decreases in compliance costs, but most of the provisions in the rule are expected to result in no changes in compliance costs. To the extent that it promotes mitigation banking, the rule may lower compensatory mitigation costs for small projects by making credits more widely available. Overall, we believe the proposed rule will result in no net change in compliance costs for permittees, including small entities that need to obtain DA permits. For a more detailed analysis of potential economic impacts of this rule, please see the regulatory analysis in the Environmental Assessment prepared for the proposed rule. We are interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under Section 202 of the UMRA, the agencies generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with “Federal mandates” that may result in expenditures to State, local, and Tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating a rule for which a written statement is needed, Section 205 of the UMRA generally requires the agencies to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows an agency to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the agency publishes with the final rule an explanation why that alternative was not adopted. Before an agency establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed, under Section 203 of the UMRA, a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of regulatory proposals with significant Federal intergovernmental mandates, and

informing, educating, and advising small governments on compliance with the regulatory requirements.

We have determined that the proposed rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any one year. The proposed rule is generally consistent with current agency practice and therefore does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any one year. Therefore, the proposed rule is not subject to the requirements of Sections 202 and 205 of the UMRA. For the same reasons, we have determined that the proposed rule contains no regulatory requirements that might significantly or uniquely affect small governments. Therefore, the proposed rule is not subject to the requirements of Section 203 of UMRA.

Executive Order 13045

Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that we have reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the proposed rule on children, and explain why the regulation is preferable to other potentially effective and reasonably feasible alternatives.

The proposed rule is not subject to this Executive Order because it is not economically significant as defined in Executive Order 12866. In addition, it does not concern an environmental or safety risk that we have reason to believe may have a disproportionate effect on children.

Executive Order 13175

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires agencies to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." The phrase "policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship

between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The proposed rule does not have tribal implications. It is generally consistent with current agency practice and will not have substantial direct effects on tribal governments, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. Therefore, Executive Order 13175 does not apply to this proposed rule. However, in the spirit of Executive Order 13175, we specifically request comment from Tribal officials on the proposed rule.

Environmental Documentation

The Corps has prepared a draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the proposed rule. The draft EA and FONSI are available at: <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/citizen.htm>. It is also available by contacting Headquarters, U.S. Army Corps of Engineers, Operations and Regulatory Community of Practice, 441 G Street, NW., Washington, DC 20314-1000.

Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. We will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. The proposed rule is not a "major rule" as defined by 5 U.S.C. 804(2).

Executive Order 12898

Executive Order 12898 requires that, to the greatest extent practicable and permitted by law, each Federal agency must make achieving environmental justice part of its mission. Executive Order 12898 provides that each Federal agency conduct its programs, policies, and activities that substantially affect human health or the environment in a manner that ensures that such programs, policies, and activities do not have the

effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under such programs, policies, and activities because of their race, color, or national origin.

The proposed rule is not expected to negatively impact any community, and therefore is not expected to cause any disproportionately high and adverse impacts to minority or low-income communities.

Executive Order 13211

The proposed rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104-113, section 12(d), (15 U.S.C. 272 note), directs us to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs us to provide Congress, through the Office of Management and Budget (OMB), explanations when the we decide not to use available and applicable voluntary consensus standards.

This action does not involve technical standards. Therefore, the Corps and EPA did not consider the use of any new voluntary consensus standards.

List of Subjects

33 CFR Part 325

Administrative practice and procedure, Intergovernmental relations, Environmental protection, Navigation, Water pollution control, Waterways.

33 CFR Part 332

Administrative practice and procedure, Intergovernmental relations, Navigation (water), Water pollution control, Water resources, Watersheds, Waterways.

40 CFR Part 230

Environmental protection, Water pollution control.

Corps of Engineers

33 CFR Chapter II

For the reasons stated in the preamble, the Corps proposes to amend 33 CFR chapter II as set forth below:

PART 325—PROCESSING OF DEPARTMENT OF THE ARMY PERMITS

1. The authority citation for part 325 continues to read as follows:

Authority: 33 U.S.C. 401 *et seq.*; 33 U.S.C. 1344; 33 U.S.C. 1413.

2. Amend § 325.1 by redesignating paragraphs (d)(7), (d)(8), and (d)(9) as paragraphs (d)(8), (d)(9), and (d)(10), respectively, and adding new paragraph (d)(7) as follows:

§ 325.1 Applications for permits.

* * * * *

(d) * * *

(7) For activities involving discharges of dredged or fill material into waters of the United States, the application must include a statement describing how impacts to waters of the United States are to be avoided, minimized, and compensated (see § 332.4(b)(1)).

* * * * *

PART 332—COMPENSATORY MITIGATION FOR LOSSES OF AQUATIC RESOURCES

3. Add part 332 to read as follows:

PART 332—COMPENSATORY MITIGATION FOR LOSSES OF AQUATIC RESOURCES

Sec.

- 332.1 Purpose and general considerations.
- 332.2 Definitions.
- 332.3 General compensatory mitigation requirements.
- 332.4 Planning and documentation.
- 332.5 Ecological performance standards.
- 332.6 Monitoring.
- 332.7 Management.
- 332.8 Mitigation banks.
- 332.9 In-lieu fee programs.

Authority: 33 U.S.C. 401 *et seq.*; 33 U.S.C. 1344; and Pub. L. 108–136.

§ 332.1 Purpose and general considerations.

(a) *Purpose.* (1) The purpose of this part is to establish standards and criteria for the use of all types of compensatory mitigation, including on-site and off-site permittee-responsible mitigation, mitigation banks, and in-lieu fee mitigation to offset unavoidable impacts to waters of the United States

authorized through the issuance of Department of the Army (DA) permits pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and/or Sections 9 or 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401, 403). This part implements Section 314(b) of the 2004 National Defense Authorization Act (Pub. L. 108–136), which directs that the standards and criteria shall, to the maximum extent practicable, maximize available credits and opportunities for mitigation, provide for regional variations in wetland conditions, functions, and values, and apply equivalent standards and criteria to each type of compensatory mitigation. This part is intended to further clarify mitigation requirements established under U.S. Army Corps of Engineers (Corps) and U.S. Environmental Protection Agency regulations at 33 CFR part 320 and 40 CFR part 230, respectively.

(2) These rules have been jointly developed by the Secretary of the Army, acting through the Chief of Engineers, and the Administrator of the Environmental Protection Agency. From time to time guidance on interpreting and implementing these rules may be prepared jointly by EPA and the U.S. Army Corps of Engineers at the national or regional level. No modifications to the basic application, meaning, or intent of these rules will be made without further joint rulemaking by the Secretary of the Army, acting through the Chief of Engineers and the Administrator of the Environmental Protection Agency pursuant to the Administrative Procedure Act (5 U.S.C. 551 *et seq.*).

(b) *Applicability.* This part does not alter the regulations at § 320.4(r) of this title, which address the general mitigation requirements for DA permits. In particular, it does not alter the circumstances under which compensatory mitigation is required or the definitions of “waters of the United States” or “navigable waters of the United States,” which are provided at parts 328 and 329 of this title, respectively. 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.

(c) *Sequencing.* Pursuant to these requirements, the district engineer will issue a section 404 permit only upon a determination that the permit applicant has taken all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the United

States. Practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. Compensatory mitigation for unavoidable impacts may be required to ensure that a section 404 activity complies with the Section 404(b)(1) Guidelines. Compensatory mitigation may also be required to ensure that an activity requiring authorization under Section 404 of the Clean Water Act and/or Sections 9 or 10 of the Rivers and Harbors Act of 1899 is not contrary to the public interest.

(d) *Accounting for regional variations.* Where appropriate, district engineers shall account for regional characteristics of aquatic resource types, functions, services, and values when determining performance standards and monitoring requirements for compensatory mitigation projects.

§ 332.2 Definitions.

For the purposes of this part, the following terms are defined:

Adaptive management means the development of a management strategy that anticipates the challenges associated with likely future impacts to the aquatic resource functions of the mitigation site. It acknowledges the risk and uncertainty of compensatory mitigation projects and allows modification of those projects to optimize performance. The process will provide guidance on the selection of appropriate remedial measures that will ensure the continued adequate provision of aquatic resource function and involves analysis of monitoring results to identify potential problems of a compensatory project and identification of measures to rectify those problems.

Buffer means an upland and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

Compensatory mitigation means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Compensatory mitigation project means a restoration, establishment, enhancement, and/or preservation activity implemented by the permittee as a requirement of a DA permit (i.e.,

permittee-responsible mitigation), or by a third party (e.g., a mitigation bank).

Credit means a unit of measure (e.g., a functional or area measure) representing the accrual or attainment of aquatic functions at a compensatory mitigation site. The measure of function is based on the aquatic resources restored, established, enhanced, or preserved.

DA means Department of the Army.

Days means calendar days.

Debit means a unit of measure (e.g., a functional or area measure) representing the loss of aquatic functions at an impact or project site. The measure of function is based on the aquatic resources impacted by the authorized activity.

Enhancement means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation) means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland or deepwater site. Establishment results in a gain in aquatic resource area.

Functional capacity means the degree to which an area of aquatic resource performs a specific function.

Functions means the physical, chemical, and biological processes that occur in aquatic resources and other ecosystems.

Impact means adverse effect.

In-kind means a resource type that is structurally and/or functionally similar to the impacted resource type.

Interagency Review Team (IRT) means an interagency group of Federal, Tribal, State, and/or local regulatory and resource agency representatives that reviews documentation for, and advises the district engineer on, the establishment and management of a mitigation bank.

Mitigation bank means a site, or suite of sites, where aquatic resources such as wetlands or streams are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for authorized impacts to similar resources. Third-party mitigation banks generally sell compensatory mitigation credits to permittees whose obligation to provide mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are

governed by a mitigation banking instrument.

Mitigation banking instrument means the legal document for the establishment, operation, and use of a mitigation bank.

Off-site means an area that is neither located on the same parcel of land as the impact site, nor on a parcel of land contiguous to or near the parcel containing the impact site.

On-site means an area located on the same parcel of land as the impact site, or on a parcel of land contiguous to or near the impact site.

Out-of-kind means a resource type that is structurally and/or functionally different than the impacted resource type.

Performance standards are observable or measurable attributes that are used to determine if a compensatory mitigation project meets its objectives.

Permittee-responsible mitigation means an aquatic resource restoration, establishment, enhancement, and/or preservation activity undertaken by the permittee (or an authorized agent or contractor) to provide compensatory mitigation for which the permittee retains full responsibility.

Preservation means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Reference aquatic resources are aquatic resources that represent the range of variability exhibited by a regional class of aquatic resources as a result of natural processes and anthropogenic disturbances.

Rehabilitation means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of

returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riparian areas are lands adjacent to a waterbody. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas are adjacent to streams, lakes, and estuarine-marine shorelines and provide a variety of ecological functions and services and help improve or maintain local water quality.

Service area means the geographic area within which impacts can be mitigated at a particular mitigation bank, as designated in its instrument.

Services means the benefits that human populations receive from functions that occur in aquatic resources and other ecosystems.

Sponsor means any public or private entity responsible for establishing and, in most circumstances, operating a mitigation bank.

Standard permit means a standard, individual permit issued under the authority of Section 404 of the Clean Water Act and/or Sections 9 or 10 of the Rivers and Harbors Act of 1899.

Values means the utility or satisfaction that humans derive from aquatic resource services. Values can be described in monetary terms or in qualitative terms, although many of the values associated with aquatic resources cannot be easily monetized. Values can be either use values (e.g., recreational enjoyment) or non-use values (e.g., stewardship, biodiversity).

Watershed plan means a plan developed by federal, tribal, state, and/or local government agencies, in consultation with relevant stakeholders. A watershed plan addresses ecological conditions in the watershed, multiple stakeholder interests, and land uses. Watershed plans may also identify priority sites for aquatic resource restoration and protection. Examples of watershed plans include special area management plans, advance identification programs, and watershed management plans.

§ 332.3 General compensatory mitigation requirements.

(a) *General considerations.* The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the United States authorized by DA permits. The district engineer must determine the

compensatory mitigation to be required in a DA permit, based on what is available, practicable, and capable of compensating for the aquatic resource functions that will be lost as a result of the permitted activity. In making this determination, the district engineer must assess the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed, and the economic costs of the compensatory mitigation.

Compensatory mitigation requirements must be commensurate with the amount and type of impact that is associated with a particular DA permit. Permit applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts.

(b) *Location and type of compensatory mitigation.* (1) Where project impacts are located within the service area of an approved mitigation bank, and the mitigation bank has credits available for the type of resource impacted, the project's compensatory mitigation requirements may be met by the purchase of an appropriate number of credits from the mitigation bank.

(2) Where practicable and appropriate, the district engineer will require that the location and aquatic resource type of permittee-responsible compensatory mitigation necessary to offset anticipated impacts be consistent with an established watershed plan or be determined using the principles of a watershed approach as outlined in paragraph (c) of this section. The district engineer and the IRT should also use a watershed approach to the extent practicable in reviewing mitigation banking instruments.

(3) Where reliance on a watershed plan or approach is not practicable, the district engineer will consider opportunities to offset anticipated aquatic resource impacts by requiring on-site and in-kind compensatory mitigation. The district engineer must also consider the practicability of on-site compensatory mitigation and its compatibility with the proposed project.

(4) If, after considering opportunities for on-site, in-kind compensatory mitigation as provided in paragraph (b)(3) of this section, the district engineer determines that these compensatory mitigation opportunities are not practicable, are unlikely to compensate for the permitted activity, or will be incompatible with the proposed project, and an alternative, practicable off-site and/or out-of-kind mitigation opportunity is identified that has a greater likelihood of offsetting the permitted activity, the district engineer shall require that this alternative

compensatory mitigation be provided. In general, compensatory mitigation should be located within the same watershed as the impact site, and should be located where it is most likely to successfully replace lost functions, services, and values, taking into account such watershed scale features as aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources (including the availability of water rights), and compatibility with adjacent land uses.

(c) *Watershed approach to compensatory mitigation.* (1) The district engineer must use a watershed approach to establish compensatory mitigation requirements in DA permits to the extent appropriate and practicable. Where an applicable watershed plan is available, the watershed approach should be based on the existing plan. Where no such plan is available, the watershed approach should be based on information provided by the project sponsor or available from other sources. The ultimate goal of a watershed approach is to maintain and improve the quality and quantity of aquatic resources within watersheds through strategic selection of compensatory mitigation sites.

(2) *Considerations.* (i) A watershed approach to compensatory mitigation considers the importance of landscape position and resource type of compensatory mitigation projects for the ecological functions and sustainability of aquatic resources within the watershed. Such an approach considers how the types and locations of compensatory mitigation projects will provide the desired aquatic resource functions, and will continue to function over time in a changing landscape. It also considers the habitat requirements of important species, habitat loss or conversion trends, sources of watershed impairment, and current development trends, as well as the requirements of other regulatory and non-regulatory programs that affect the watershed, such as storm water management or habitat conservation programs. It includes the protection and maintenance of terrestrial resources, such as non-wetland riparian areas and uplands, when those resources contribute to or improve the overall ecological functioning of aquatic resources in the watershed.

(ii) Locational factors (e.g., hydrology, surrounding land use) are important to the success of compensatory mitigation for impacted habitat functions and values and may lead to siting of such mitigation away from the project area. However, consideration should also be given to functions, services, and values

(e.g., water quality, flood control, shoreline protection) that will likely need to be addressed at or near the areas impacted by the permitted project.

(iii) A watershed approach to compensatory mitigation may involve planning efforts to inventory historic and existing aquatic resources, including identification of degraded aquatic resources, and planning efforts to identify immediate and long-term aquatic resource needs within watersheds that can be met through permittee-responsible mitigation projects or mitigation banks. Watershed planning efforts may identify and/or prioritize aquatic resources that are important for maintaining and restoring ecological functions of the watershed.

(3) *Information Needs.* The use of a watershed approach is based on analysis of information regarding watershed conditions and needs. Such information includes: Current trends in habitat loss or conversion, cumulative impacts of past development activities, current development trends, the presence and needs of sensitive species, site conditions that favor or hinder the success of mitigation projects, chronic environmental problems such as flooding or poor water quality, and local watershed goals and priorities. This information may be contained in an existing watershed plan or may be available from other sources. The level of information and analysis needed to support a watershed approach must be commensurate with the scope and scale of the proposed project requiring a DA permit, as well as the functions lost as a result of that project.

(d) *Site selection.* The compensatory mitigation project site must be ecologically suitable for providing the desired aquatic resource functions. In determining the ecological suitability of the compensatory mitigation project site, the district engineer must consider the following factors:

(1) Hydrological conditions, soil characteristics, and other physical and chemical characteristics;

(2) Watershed-scale features, such as aquatic habitat diversity, habitat connectivity, and other landscape scale functions;

(3) The size and location of the compensatory mitigation site relative to hydrologic sources (including the availability of water rights) and other ecological features;

(4) Compatibility with adjacent land uses and watershed management plans;

(5) Reasonably foreseeable effects the compensatory mitigation project will have on ecologically important aquatic or terrestrial resources (e.g., shallow sub-tidal habitat, mature forests),

cultural sites, or habitat for Federally- or State-listed threatened and endangered species; and

(6) Other relevant factors including, but not limited to, development trends, anticipated land use changes, habitat status and trends, local or regional goals for the restoration or protection of particular habitat types or functions (e.g., re-establishment of habitat corridors or habitat for species of concern), water quality goals, floodplain management goals, and the relative potential for chemical contamination of the aquatic resources.

(e) *Mitigation type.* (1) In general, in-kind mitigation is preferable to out-of-kind mitigation because it is most likely to compensate for the functions, services, and values lost at the impact site. For example, restoration of wetlands is most likely to compensate for unavoidable impacts to wetlands, while restoration of streams is most likely to compensate for unavoidable impacts to streams. Thus, except as provided in paragraph (e)(2) of this section, the district engineer should require that compensatory mitigation be of a similar type to the impacted aquatic resource.

(2) If the district engineer determines through the decision framework in paragraph (b) of this section that out-of-kind compensatory mitigation will serve the aquatic resource needs of the watershed, the district engineer may authorize the use of such out-of-kind compensatory mitigation. Factors that should be considered in making this determination include historic loss of habitat types within the watershed, the needs of sensitive species, appropriate mixes of habitat to maintain ecosystem viability, the relative likelihood of success in establishing different habitat types, needs for ecosystem services, and local watershed goals and priorities. The basis for authorization of out-of-kind compensatory mitigation must be documented in the administrative record for the permit action.

(f) *Amount of compensatory mitigation.* 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. The district engineer must require a

mitigation ratio greater than one-to-one where necessary to account for the method of compensatory mitigation (e.g., preservation), differences between the functions lost at the impact site and the functions expected to be produced by the compensatory mitigation project, temporal losses of aquatic resource functions, and/or the difficulty of restoring or establishing the desired aquatic resource type and functions. The rationale for the required replacement ratio must be documented in the administrative record for the permit action.

(g) *Use of mitigation banks.* Mitigation banks may be used to compensate for impacts to aquatic resources authorized by general permits and individual permits, including after-the-fact permits.

(h) *Preservation.* (1) Preservation may be used to provide compensatory mitigation for activities authorized by DA permits where:

(i) The resources provide important physical, chemical, or biological functions for the watershed;

(ii) The resources contribute to the ecological sustainability of the watershed;

(iii) Preservation is determined by the district engineer to be appropriate and practicable;

(iv) The resources are under threat of destruction or adverse modifications; and

(v) The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust).

(2) Where preservation is used to provide compensatory mitigation, to the extent appropriate and practicable the preservation shall be done in conjunction with aquatic resource restoration, establishment, and/or enhancement activities. This requirement may be waived by the district engineer where preservation has been identified as a high priority using a watershed approach, as described in paragraph (c) of this section, but compensation ratios should be higher.

(i) *Buffers.* District engineers may require that compensatory mitigation project sites include, and may provide compensatory mitigation credit for, the establishment and maintenance of riparian areas and/or upland buffers around the restored, established, enhanced, or preserved aquatic resources where necessary to ensure the long-term viability of those resources.

(j) *Relationship to other Federal, Tribal, State, and local programs.* Compensatory mitigation projects for DA permits may also be used to compensate for environmental impacts

authorized under other programs, such as Tribal, State, or local wetlands regulatory programs, the National Pollutant Discharge Elimination System Permit Program, Corps civil works projects, and Superfund removal and remedial actions, consistent with the terms and requirements of these programs and subject to the following considerations. The project must include appropriate compensatory mitigation for unavoidable impacts to aquatic resources authorized by the DA permit, over and above what would be required under other programs to address other impacts. Under no circumstances may the same credits be used to provide mitigation for more than one activity. However, where appropriate, compensatory mitigation projects, including mitigation banks, may be designed to holistically address requirements under multiple programs and authorities for the same activity. Except for projects undertaken by Federal agencies, or where Federal funding is specifically authorized to provide compensatory mitigation, Federally-funded wetland conservation projects undertaken for purposes other than compensatory mitigation, such as the Wetlands Reserve Program and the Partners for Wildlife Program activities, cannot be used for the purpose of generating compensatory mitigation credits for activities authorized by DA permits. However, compensatory mitigation credits may be generated by activities undertaken in conjunction with, but supplemental to, such programs in order to maximize the overall ecological benefits of the conservation project.

(k) *Permit conditions.* The compensatory mitigation requirements for a DA permit, including the amount and type of compensatory mitigation, must be clearly stated in the special conditions of the individual permit or general permit verification (see 33 CFR 325.4 and 330.6(a)). The special conditions must be enforceable and describe the objectives of the compensatory mitigation project. The special conditions must also identify the party responsible for providing the compensatory mitigation. The special conditions must incorporate, by reference, compensatory mitigation plans approved by the district engineer. The performance standards and monitoring required for the compensatory mitigation project must also be clearly stated in the special conditions or the approved compensatory mitigation plan. The special conditions must also describe any required financial assurances or

long-term management provisions for the compensatory mitigation project. If a mitigation bank is used to provide the required compensatory mitigation, the special conditions must indicate which mitigation bank will be used, and specify the required number and type of credits the permittee is required to purchase.

(l) *Party responsible for compensatory mitigation.* (1) The special conditions of the DA permit must clearly indicate the party or parties responsible for the implementation, performance, and long-term management of the compensatory mitigation project.

(2) For mitigation banks, the mitigation banking instrument must clearly indicate the party or parties responsible for the implementation, performance, and long-term management of the compensatory mitigation project.

(3) If a mitigation bank is approved by the district engineer to provide required compensatory mitigation for a DA permit, the special conditions of that DA permit must indicate which mitigation bank will be used to provide that compensatory mitigation. In such cases, the mitigation bank assumes responsibility for providing the required compensatory mitigation after the permittee has secured those credits from the sponsor.

(m) *Timing.* Implementation of the compensatory mitigation project shall be, to the maximum extent practicable, in advance of or concurrent with the activity causing the authorized impacts. Where it is not practicable to complete the initial physical and biological improvements required by the approved mitigation plan by the first full growing season following the impacts resulting from the permitted activity, the district engineer may require additional compensatory mitigation to offset temporal losses of aquatic functions that will result from the permitted activity.

(n) *Financial assurances.* (1) The district engineer shall require sufficient financial assurances to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with applicable performance standards. In cases where an alternate mechanism is available to ensure a high level of confidence that the compensatory mitigation will be provided and maintained (e.g., a formal, documented commitment from a government agency or public authority) the district engineer may determine that financial assurances are not necessary for that compensatory mitigation project.

(2) The amount of the required financial assurances must be

determined by the district engineer, in consultation with the project sponsor, and must be based on the size and complexity of the compensatory mitigation project, the degree of completion of the project at the time of project approval, the likelihood of success, the past performance of the project sponsor, and any other factors the district engineer deems appropriate. Financial assurances may be in the form of performance bonds, escrow accounts, casualty insurance, letters of credit, legislative appropriations for government sponsored projects, or other appropriate instruments, subject to the approval of the district engineer. The rationale for determining the amount of the required financial assurances must be documented in the administrative record for the DA permit.

(3) Financial assurances shall be phased out once the compensatory mitigation project has been determined by the district engineer to be successful in accordance with its performance standards. The DA permit or mitigation banking instrument must clearly specify the conditions under which the financial assurances are to be released to the permittee, sponsor, and/or other financial assurance provider, including, as appropriate, linkage to achievement of performance standards, adaptive management, or compliance with special conditions.

(o) *Compliance with applicable law.* The compensatory mitigation project must comply with all applicable Federal, state, and local laws. The DA permit or mitigation banking instrument must not require participation by the Corps or any other Federal agency in project management, including receipt or management of financial assurances or long-term financing mechanisms, except as determined by the Corps or other agency to be consistent with its statutory authority, mission, and priorities.

§ 332.4 Planning and documentation.

(a) *Pre-application consultations.* Potential applicants for standard permits are encouraged to participate in pre-application meetings with the Corps and appropriate agencies to discuss potential compensatory mitigation requirements and information needs.

(b) *Public review and comment.* (1) For an activity that requires a standard DA permit pursuant to Section 404 of the Clean Water Act, the public notice for the proposed activity must explain how impacts associated with the proposed activity are to be avoided, minimized, and compensated for. This explanation shall address the amount, type, and location of any proposed

compensatory mitigation, including any out-of-kind mitigation, or indicate an intention to use an approved mitigation bank. The level of detail provided in the public notice must be commensurate with the scope and scale of the project.

(2) For activities authorized by general permits, review of compensatory mitigation plans must be conducted in accordance with the terms and conditions of those general permits and applicable regulations.

(c) *Mitigation plan.* (1) The permittee or mitigation bank sponsor 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 or sponsor must prepare a final mitigation plan, which must be approved by the district engineer prior to issuing the DA permit or approving the mitigation banking instrument. The approved mitigation plan must be incorporated into the DA permit or mitigation banking instrument by reference. The mitigation plan must include the items described in paragraphs (c)(2) through (c)(14) of this section, except that the district engineer may waive specific items if he determines that they are not applicable to a particular project. Permittees who plan to fulfill their compensatory mitigation obligations by purchasing credits from an approved mitigation bank need only include the name of the mitigation bank and the items described in paragraphs (c)(5) and (c)(6) of this section in their mitigation plan. The level of detail of the mitigation plan should be commensurate with the scale and scope of the project.

(2) *Objectives.* A description of the aquatic 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 aquatic resource functions of the compensatory mitigation project will address the needs of the watershed, ecoregion, 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.

(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.

(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, and other site characteristics. A prospective permittee planning to purchase credits from an approved mitigation bank only needs to provide baseline information about the impact site, not the mitigation bank 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. For permittee-responsible mitigation, this should include an explanation of how the compensatory mitigation project compensates for unavoidable impacts to aquatic resources resulting from the permitted activity. For mitigation banks, it should include a description of resource types for which the mitigation bank may be used as compensatory mitigation and the number of credits to be provided for each resource type. This may include provisions for adjusting credits in the future, both downward (if performance standards are not met) or upward (if performance standards are significantly exceeded). For permittees intending to purchase credits from an approved mitigation bank, it should include the number and type of credits to be purchased 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; plant species to be planted at the site; the use of natural regeneration or seed banks to provide the desired plant community at the site; plans to control invasive plant species; the proposed grading plan, including elevations and slopes of the substrate; erosion control measures; and proposed stream geomorphology, if applicable.

(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.

(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.

(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 the party responsible for long-term management and long-term financing mechanisms.

(12) *Adaptive management plan.* A description of procedures to address potential 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 conducting remediation to provide aquatic resource functions.

(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.

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

§ 332.5 Ecological performance standards.

The mitigation plan must contain performance standards that will be used to assess whether the project is achieving its objectives. Performance standards should relate to the objectives of the compensatory mitigation project, so that the project can be objectively evaluated to determine if it is developing into the desired resource type and providing the expected functions. Performance standards should be based on attributes that are objective, verifiable, and can be measured with a reasonable amount of effort. Performance standards may be based on variables or measures of functional capacity described in functional assessment methodologies, measurements of hydrology or other aquatic resource characteristics, and/or comparisons to reference aquatic

resources of similar type and landscape position. Performance standards based on measurements of hydrology should take into consideration the hydrologic variability exhibited by reference aquatic resources, especially wetlands. Where practicable, performance standards should take into account the expected stages of the aquatic resource development process, in order to allow early identification of potential problems and appropriate adaptive management.

§ 332.6 Monitoring.

(a) *General.* Monitoring the compensatory mitigation project site is necessary to determine if the project is meeting its performance standards, and to determine if remediation is necessary to ensure that the compensatory mitigation project is accomplishing its objectives. The district engineer must require the submission of monitoring reports to assess the development and condition of the compensatory mitigation project, unless he determines that monitoring is not practicable for that compensatory mitigation project. The mitigation plan must address the monitoring requirements for the compensatory mitigation project, including the parameters to be monitored, the length of the monitoring period, the party responsible for conducting the monitoring, the frequency for submitting monitoring reports to the district engineer, and the party responsible for submitting those monitoring reports to the district engineer.

(b) *Monitoring period.* The mitigation plan must provide for a monitoring period that is sufficient to demonstrate that the compensatory mitigation project has met performance standards, but not less than five years. A longer monitoring period must be required for aquatic resources with slow development rates (e.g., forested wetlands, bogs). Following project implementation, the district engineer may waive the remaining monitoring requirements upon a determination that the compensatory mitigation project has achieved its performance standards. Conversely the district engineer may extend the original monitoring period upon a determination that performance standards have not been met or the compensatory mitigation project is not on track to meet them. The district engineer may also revise monitoring requirements when remediation is required.

(c) *Monitoring reports.* (1) The district engineer must determine the information to be included in monitoring reports. This information

should be sufficient for the district engineer to determine how the compensatory mitigation project is progressing towards meeting its performance standards, and may include plans, maps, and photographs to illustrate site conditions. 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.

(2) Monitoring reports should be provided by the district engineer to interested Federal, Tribal, State, and local resource agencies. The district engineer and representatives of Federal, Tribal, State, and/or local resource agencies may conduct regular (e.g., annual) on-site inspections, as appropriate, to monitor performance of the mitigation site. Monitoring reports must be made available to the public upon request.

§ 332.7 Management.

(a) *Site protection.* The aquatic habitats, riparian areas, buffers, and uplands that comprise the overall compensatory mitigation project should be provided long-term protection, through appropriate real estate instruments such as conservation easements held by, or transfer of title to, entities such as Federal, Tribal, State, or local resource agencies, non-profit conservation organizations, or private land managers, or other acceptable means for government property, such as Federal facility management plans or integrated natural resources management plans. The real estate instrument for the long-term protection of the compensatory mitigation site should restrict or prohibit incompatible uses (e.g., clear cutting) that might otherwise jeopardize the objectives of the compensatory mitigation project. Where appropriate, multiple instruments recognizing compatible uses (e.g., fishing or grazing rights) may be used.

(b) *Sustainability.* Compensatory mitigation projects should be designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context will support long-term sustainability. Where active long-term management and maintenance are necessary to ensure long-term sustainability (e.g., prescribed burning, invasive species control, maintenance of water control structures, easement enforcement), the responsible party must provide for such

management and maintenance. This includes the provision of long-term financing mechanisms where necessary.

(c) *Adaptive management.* (1) If monitoring or other information indicates that the compensatory mitigation project is not progressing towards meeting its performance standards as anticipated, the responsible party must notify the district engineer. The district engineer must require remediation to correct the deficiencies in the project to the extent appropriate and practicable. In determining appropriate and practicable remediation, the district engineer will consider whether the compensatory mitigation project is providing ecological benefits comparable to the original objectives of the compensatory mitigation project.

(2) The district engineer, in consultation with the responsible party (and other Federal, Tribal, state, and local agencies, as appropriate), will determine the appropriate remediation requirements. The required remediation may include site modifications, design changes, revisions to maintenance requirements, and revised monitoring requirements. The remediation must be designed to ensure that the modified compensatory mitigation project provides aquatic resource functions comparable to those described in the mitigation plan objectives.

(3) The performance standards must be revised where necessary to assess the success of remediation efforts and/or the realization of comparable ecological benefits that were considered in determining remediation requirements.

(d) *Long-term management.* (1) The permit conditions or mitigation banking instrument must identify the party responsible for the ownership and long-term management of the compensatory mitigation project, once performance standards have been achieved. The permit conditions or mitigation banking instrument may contain provisions allowing the permittee or sponsor to transfer the long-term management responsibilities of the compensatory mitigation project site to a land stewardship entity, such as a public agency, non-governmental organization, or private land manager, after review and approval by the district engineer. The land stewardship entity need not be identified in the original permit or mitigation banking instrument, as long as the future transfer of long-term management responsibility is approved by the district engineer.

(2) Provisions necessary for long-term financing must be included in the original permit or mitigation banking instrument. Appropriate long-term

financing mechanisms include endowments, trusts, contractual arrangements with future responsible parties, and other appropriate financial instruments. In cases where the long-term management entity is a public authority or government agency, a formal commitment to accept stewardship responsibilities for the project is acceptable in lieu of specific financial arrangements.

§ 332.8 Mitigation banks.

(a) *General considerations.* (1) All mitigation banks must have an approved instrument signed by the sponsor and the district engineer prior to being used to provide compensatory mitigation for DA permits. To the maximum extent practicable, mitigation banks must be planned and designed to be self-sustaining over time, but some active management and maintenance may be required to ensure their long-term viability and sustainability. Examples of acceptable management activities include maintaining fire dependent habitat communities in the absence of natural fire and controlling invasive exotic plant species.

(2) Mitigation banks may be sited on public or private lands. Siting on public land is only permitted when done in accordance with the mission and policies of the land management agency and with its written approval. Credits for mitigation banks on public land must be based solely on aquatic resource functions provided by the mitigation bank, over and above those provided by public programs already planned or in place.

(3) All mitigation banks must comply with the standards in this part, if they are to be used to provide compensatory mitigation for activities authorized by DA permits, regardless of whether they are sited on public or private lands and whether the sponsor is a governmental or private entity.

(b) *Interagency Review Team.* (1) The district engineer will establish an Interagency Review Team (IRT) to review documentation for the establishment and management of the mitigation bank. The district engineer or his designated representative serves as Chair of the IRT. In cases where a mitigation bank is proposed to satisfy the requirements of another Federal, Tribal, State, or local program, in addition to compensatory mitigation requirements of DA permits, the district engineer may designate an appropriate official of the responsible agency as co-Chair of the IRT.

(2) In addition to the Corps, representatives from the U.S. Environmental Protection Agency, U.S.

Fish and Wildlife Service, NOAA Fisheries, the Natural Resources Conservation Service, and other Federal agencies, as appropriate, may participate in the IRT. The IRT may also include representatives from Tribal, State, and local regulatory and resource agencies, where such agencies have authorities and/or mandates directly affecting, or affected by, the establishment, operation, or use of the mitigation bank. The district engineer will seek to include all public agencies with a substantive interest in the establishment of the mitigation bank on the IRT, but retains final authority over its composition.

(3) The primary role of the IRT is to facilitate the establishment of mitigation banks through the development of mitigation banking instruments. The IRT will review the prospectus, mitigation plan, and mitigation banking instrument and provide comments to the district engineer. Members of the IRT may also sign the mitigation banking instrument, if they so choose. By signing the mitigation banking instrument, the IRT members indicate their agreement with the terms of the instrument. The IRT will also advise the district engineer in assessing monitoring reports, recommending remedial measures, approving credit release, and approving modifications to a mitigation banking instrument.

(4) The district engineer will give full consideration to the comments and advice of the IRT. However, the district engineer alone retains final authority for approval of the mitigation banking instrument. However, in cases where the mitigation bank is also intended to satisfy the requirements of another agency, that agency must also approve the mitigation banking instrument before it can be used to satisfy such requirements.

(c) *Review process.* (1) The sponsor is responsible for preparing all documentation associated with establishment of the mitigation bank, including the prospectus, mitigation plan, and mitigation banking instrument. The prospectus provides an overview of the mitigation bank project and serves as the basis for public and initial IRT comment. The mitigation plan, as described in § 332.4(c), provides detailed plans and specifications for the mitigation bank. The mitigation banking instrument provides the authorization for the mitigation bank to provide credits to be used as compensatory mitigation for DA permits. The mitigation banking instrument must also incorporate the mitigation plan by reference.

(2) *Prospectus.* The prospectus must provide a summary of the information that will be included in the mitigation plan, at a sufficient level of detail to support informed public and IRT comment. In particular, it must describe the objectives of the proposed mitigation bank, how the mitigation bank will be established and operated, the proposed service area, and the general need for, and technical feasibility of, the proposed mitigation bank. The prospectus must discuss the ecological suitability of the site to achieve the objectives of the proposed mitigation bank. This includes the physical, chemical, and biological characteristics of the site and how that site will support the planned types of aquatic resources and functions. It should also discuss the proposed ownership arrangements and long-term management of the mitigation bank. The review process begins when the sponsor submits a complete prospectus to the district engineer. The district engineer will notify the sponsor within 15 days whether or not a submitted prospectus is complete.

(3) *Preliminary review of prospectus.* Prior to submitting a prospectus, the sponsor may elect to submit a draft prospectus to the district engineer for comment and consultation. The district engineer will provide copies of the draft prospectus to the IRT, and provide comments back to the sponsor within 30 days. Any comments from IRT members will also be forwarded to the sponsor. This preliminary review is optional but is strongly recommended. It is intended to identify potential issues early so that the sponsor may attempt to address those issues prior to the start of the formal review process.

(4) *Public review and comment.* Within 30 days of receipt of a complete prospectus, the district engineer will provide public notice of the proposed mitigation bank, in accordance with the public notice procedures at 33 CFR 325.3. The public notice must include a summary of the prospectus and indicate that the full prospectus is available to the public for review upon request. The comment period for public notice will generally be 30 days, unless the district engineer determines that a longer or shorter comment period is appropriate. The district engineer will notify the sponsor if the comment period is extended beyond 30 days, including an explanation of why the longer comment period is necessary. Copies of all comments received in response to the public notice must be distributed to the other IRT members and to the sponsor within 15 days of the close of the public comment period. The district engineer

and IRT members may also provide comments to the sponsor at this time, and copies of any such comments will also be distributed to all IRT members. If the construction of a mitigation bank requires DA authorization through the standard permit process, the public notice requirement may be satisfied through the public notice provisions of the standard permit processing procedures, provided all of the relevant information is provided.

(5) *Draft mitigation banking instrument.* After considering comments from the district engineer, the IRT, and the public, if the sponsor chooses to proceed with establishment of the mitigation bank, he must prepare a draft mitigation banking instrument and submit it to the district engineer. The draft mitigation banking instrument should be based on the prospectus and must describe in detail the physical and legal characteristics of the mitigation bank and how it will be established and operated. The draft mitigation banking instrument must include the following information:

(i) *Mitigation plan*, including all applicable items listed in § 332.4(c)(2) through (14);

(ii) *Geographic service area of the mitigation bank.* The service area is the watershed or other geographic area within which a mitigation bank is authorized to provide compensation for unavoidable impacts authorized by DA permits. The service area should be large enough to support an economically viable mitigation bank, but must not be larger than is appropriate to ensure that the aquatic resources provided by the mitigation bank will effectively compensate for adverse environmental impacts across the entire service area. The district engineer must consider relevant environmental and economic factors when approving the service area. The district engineer may also consider locally-developed standards and criteria. In urban areas, a U.S. Geological Survey 8-digit hydrologic unit code (HUC) watershed or a smaller watershed may be an appropriate service area. In rural areas, several contiguous 8-digit HUCs or a 6-digit HUC watershed may be an appropriate service area for the mitigation bank. The basis for determining the service area must be documented in writing and referenced in the mitigation banking instrument;

(iii) *Credit release schedule.* Credit release must be tied to achievement of specific milestones. If the mitigation bank does not achieve appropriate milestones (e.g., performance standards) as anticipated, the district engineer may

modify the credit release schedule, including reducing the number of available credits or suspending credit sales altogether;

(iv) Accounting procedures;

(v) A provision stating that legal responsibility for providing the compensatory mitigation lies with the sponsor;

(vi) Default and closure provisions; and

(vii) Any other information deemed necessary by the district engineer.

(6) *IRT review.* Upon receiving a draft mitigation banking instrument, the district engineer must provide copies of the draft instrument to the IRT members for a 30-day comment period. Following the comment period, the district engineer will discuss any comments with the appropriate agencies and with the sponsor. The district engineer will seek to resolve any issues using a consensus-based approach. Within 90 days of receipt of the complete draft mitigation banking instrument, the district engineer must notify the sponsor of the status of the IRT review.

Specifically, the district engineer must indicate to the sponsor if the draft mitigation banking instrument is generally acceptable and what changes, if any, are needed. If there are significant unresolved concerns that may lead to a formal objection from one or more IRT members to the final mitigation banking instrument, the district engineer will indicate the nature of those concerns.

(7) *Final mitigation banking instrument.* If the sponsor still wishes to proceed with establishment of the mitigation bank, he must submit a final mitigation banking instrument to the district engineer for approval. The final mitigation banking instrument should address any comments provided as a result of the IRT review process. The final mitigation banking instrument must be provided directly by the sponsor to all members of the IRT. Within 15 days of receipt of the final mitigation banking instrument, the district engineer will notify the IRT members whether or not he intends to approve the mitigation banking instrument. If no IRT member objects, by initiating the dispute resolution process in paragraph (d) of this section within 30 days of receipt of the final mitigation banking instrument, the district engineer will notify the sponsor of his final decision and, if the mitigation banking instrument is approved, arrange for it to be signed by the appropriate parties. If any IRT member initiates the dispute resolution process, the district engineer will notify the sponsor. Following conclusion of

the dispute resolution process, the district engineer will notify the sponsor of his final decision, and if the mitigation banking instrument is approved, arrange for it to be signed by the appropriate parties. The final mitigation banking instrument must contain the types of information items listed in paragraphs (c)(5)(i) through (vii) of this section.

(d) *Dispute resolution process.* (1) Within 15 days of receipt of the district engineer's notification of intent to approve a mitigation banking instrument, the Regional Administrator of the U.S. EPA, the Regional Director of the U.S. Fish and Wildlife Service, the Regional Director of the National Marine Fisheries Service, and/or other senior officials of agencies represented on the IRT may notify the district engineer and other IRT members by letter if they object to the approval of the proposed final mitigation banking instrument. This letter must include an explanation of the basis for the objection and, where feasible, offer recommendations for resolving the objections. If the district engineer does not receive any objections within this time period, he may proceed to final action on the mitigation banking instrument.

(2) The district engineer must respond to the objection within 30 days of receipt of the letter. The district engineer's response may indicate an intent to disapprove the mitigation banking instrument as a result of the objection, an intent to approve the mitigation banking instrument despite the objection, or may provide a modified mitigation banking instrument that attempts to address the objection. The district engineer's response must be provided to all IRT members.

(3) Within 15 days of receipt of the district engineer's response, if the Regional Administrator or Regional Director is not satisfied with the response he may forward the issue to the Assistant Administrator, Office of Water of the U.S. EPA, the Assistant Secretary for Fish and Wildlife and Parks of the U.S. FWS, or the Undersecretary for Oceans and Atmosphere of NOAA, as appropriate, for review and must notify the district engineer by faxed letter (with copies to all IRT members) that the issue has been forwarded for Headquarters review. This step is available only to the IRT members representing these three Federal agencies, however other IRT members who do not agree with the district engineer's final decision do not have to sign the mitigation banking instrument or recognize the mitigation bank for purposes of their own programs

and authorities. If an IRT member other than the one filing the original objection has a new objection based on the district engineer's response, he may use the first step in this procedure (paragraph (d)(1) of this section) to provide that objection to the district engineer.

(4) If the issue has not been forwarded to the objecting agency's Headquarters, then the district engineer may proceed with final action on the mitigation banking instrument. If the issue has been forwarded to the objecting agency's Headquarters, the district engineer must hold in abeyance the final action on the mitigation banking instrument, pending Headquarters level review described below.

(5) Within 20 days from the date of the letter requesting Headquarters level review, the Assistant Administrator, Office of Water, the Assistant Secretary for Fish and Wildlife and Parks, or the Undersecretary for Oceans and Atmosphere must either notify the Assistant Secretary of the Army (Civil Works) (ASA(CW)) that further review will not be requested, or request that the ASA(CW) review the draft mitigation banking instrument.

(6) Within 30 days of receipt of the letter from the objecting agency's Headquarters request for ASA(CW)'s review of the draft mitigation banking instrument, the ASA(CW), through the Director of Civil Works, must review the draft mitigation banking instrument and advise the district engineer on how to proceed with final action on that instrument. The ASA(CW) must immediately notify the Assistant Administrator, Office of Water, the Assistant Secretary for Fish and Wildlife and Parks, and/or the Undersecretary for Oceans and Atmosphere of the final decision.

(7) In cases where the dispute resolution procedure is used, the district engineer must notify the sponsor of his final decision within 150 days of receipt of the final mitigation banking instrument.

(e) *Extension of deadlines.* (1) The deadlines in paragraphs (c) and (d) of this section may be extended by the district engineer at his sole discretion in cases where:

(i) Compliance with other applicable laws, such as Endangered Species Act Section 7 consultation, is required;

(ii) Timely submittal of information necessary for the review of the proposed mitigation bank is not accomplished by the sponsor; or

(iii) Information that is essential to the district engineer's response cannot be reasonably obtained within the specified time frame.

(2) In such cases, the district engineer must promptly notify the sponsor in writing of the extension and the reason for it. Such extensions shall be for the minimum time necessary to resolve the issue necessitating the extension.

(f) *Modification of mitigation banking instruments.* (1) In general, modification of an approved mitigation banking instrument must follow the procedures in paragraph (c) of this section, unless the district engineer determines that the streamlined review process described in paragraph (f)(2) of this section is warranted. The streamlined review process may be used for changes reflecting adaptive management of the mitigation bank, changes in credit release schedules, and changes that the district engineer determines are non-significant.

(2) If the district engineer determines that the streamlined review process is warranted, he must notify the IRT members and the sponsor of this determination and provide them with copies of the proposed modification. IRT members and the sponsor have 30 days to notify the district engineer if they have concerns with the proposed modification. If IRT members or the sponsor notify the district engineer of such concerns, the district engineer shall attempt to resolve those concerns. Within 60 days of providing the proposed modification to the IRT, the district engineer must notify the IRT members of his intent to approve or disapprove the proposed modification. If no IRT member objects, by initiating the dispute resolution process in paragraph (d) of this section, within 15 days of receipt of this notification, the district engineer will notify the sponsor of his final decision and, if the modification is approved, arrange for it to be signed by the appropriate parties. If any IRT member initiates the dispute resolution process, the district engineer will so notify the sponsor. Following conclusion of the dispute resolution process, the district engineer will notify the sponsor of his final decision, and if the modification is approved, arrange for it to be signed by the appropriate parties.

(g) *Umbrella mitigation banking instruments.* A single mitigation banking instrument may provide for future authorization of additional mitigation bank sites. As additional sites are selected, they must be included in the mitigation banking instrument as modifications, using the procedures in paragraph (c) of this section.

(h) *Coordination of mitigation banking instrument and DA permit issuance.* In cases where initial establishment of the mitigation bank

involves activities requiring DA authorization, the permit should not be issued until all relevant provisions of the mitigation banking instrument have been substantively determined. This is to ensure that the DA permit accurately reflects all relevant provisions of the final mitigation banking instrument.

(i) *Project implementation.* Authorization to sell credits to satisfy compensatory mitigation requirements in DA permits is contingent on compliance with all of the terms of the mitigation banking instrument. This includes constructing a mitigation bank in accordance with the mitigation plan as approved by the district engineer and incorporated by reference in the mitigation banking instrument. If the aquatic resource restoration, establishment, enhancement, and/or preservation activities cannot be implemented in accordance with the approved mitigation plan, the district engineer must consult with the sponsor and the IRT to consider modifications to the mitigation banking instrument, including adaptive management, revisions to the credit release schedule, and alternatives for providing compensatory mitigation to satisfy any credits that have already been sold.

(j) *Credit withdrawal from mitigation banks.* The mitigation banking instrument may allow for initial debiting of a percentage of the total credits projected at mitigation bank maturity provided the following conditions are satisfied: the mitigation banking instrument and mitigation plan have been approved, the mitigation bank site has been secured, appropriate financial assurances have been established, and any other requirements determined to be necessary by the district engineer have been fulfilled. The mitigation banking instrument must provide a schedule for additional credit releases as appropriate milestones are achieved (see paragraph (k)(7) of this section).

(k) *Determining credits.* (1) *Units of measure.* For mitigation banks, the principal units for credits and debits are acres or linear feet or functional assessment units of particular resource types. Functional assessment units may be linked to acres or linear feet.

(2) *Functional assessment.* Where practicable, an appropriate functional assessment method (e.g., hydrogeomorphic approach to wetlands functional assessment) must be used to assess and describe the aquatic resource types that will be restored, established, enhanced and/or preserved by the mitigation bank.

(3) *Credit production.* The number of credits must reflect the difference

between pre- and post-mitigation bank site conditions. If an existing resource is being enhanced, the number of credits should reflect only the enhancements produced by construction of the mitigation bank. This may be reflected in a discounted number of credits relative to the total acres or linear feet encompassed by the mitigation bank.

(4) *Credit value.* Once a credit is debited, its value cannot change.

(5) *Credits provided by preservation.* These credits should be specified as acres or linear feet of preservation of a particular resource types. In determining the compensatory mitigation requirements for DA permits using the mitigation bank, the district engineer should apply a higher mitigation ratio if the requirements are to be met through the use of preservation credits. In determining this higher ratio, the district engineer must consider the relative importance of both the impacted and the preserved aquatic resources in sustaining watershed functions as described in § 332.3(c).

(6) *Credits provided by riparian areas, buffers, and uplands.* These credits should be specified as acres or linear feet of riparian area, buffer, and uplands respectively. Non-aquatic resources can only be used as compensatory mitigation for impacts to aquatic resources authorized by DA permits when those resources are essential to maintaining the ecological viability of adjoining aquatic resources. In determining the compensatory mitigation requirements for DA permits using the mitigation bank, 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 as described in § 332.3(c) and are the most appropriate compensation for the authorized impacts.

(7) *Credit release schedule.* The terms of the credit release schedule must be specified in the mitigation banking instrument. The credit release schedule may provide for release of a limited portion of projected credits once the mitigation banking instrument, including the mitigation plan, has been approved, the site secured, and appropriate financial assurances established. Release of the remaining credits must be tied to performance based milestones (e.g., construction, planting, establishment of specified plant and animal communities). The credit release schedule should reserve a significant share of the total credits for release only after full achievement of ecological performance standards. When determining the credit release schedule, factors to be considered may include,

but are not limited to: The method of providing compensatory mitigation credits (e.g., restoration), the likelihood of success, the nature and amount of work needed to generate the mitigation bank credits, the aquatic resource type(s) and function(s) to be provided by the mitigation bank, and the initial capital costs needed to establish the mitigation bank. Once released, credits may only be used to satisfy compensatory mitigation requirements in a DA permit if they have been specifically approved by the district engineer as part of the permit review process.

(8) *Release of credits.* Credit releases must be approved by the district engineer. The sponsor must submit documentation to the district engineer demonstrating that the appropriate milestones for a release of credits have been achieved and requesting the release. The district engineer will provide copies of this documentation to the IRT members for review. IRT members must provide any comments to the district engineer within 15 days of receiving this documentation. However, if the district engineer determines that a site visit is necessary, IRT members must provide any comments to the district engineer within 30 days of receipt of this documentation. After full consideration of any comments received, the district engineer will determine whether the milestones have been achieved and the credits can be released.

(9) *Adjustments to credit totals and release schedules.* (i) If, after achieving all performance standards as specified in the mitigation banking instrument, the sponsor finds that the mitigation bank has developed aquatic resource functions substantially in excess of those upon which the original credit totals and release schedule were based, he may request that the mitigation banking instrument be amended in accordance with the procedures in paragraph (f) of this section. This request must include detailed documentation of the aquatic resource functions provided by the mitigation bank site, an explanation of how those aquatic resource functions substantially exceed the functions upon which the original credit totals were based, an explanation of the basis for calculating the additional credits, and any other information deemed necessary by the district engineer.

(ii) If the district engineer determines that the mitigation bank is not meeting performance standards, he may reduce the number of available credits or suspend credit sales. The district engineer may also require adaptive

management and/or direct the use of financial assurances for remediation.

(1) *Reporting.* (1) *Ledger account.* The mitigation banking instrument must contain a provision requiring the sponsor to establish and maintain a ledger to account for all credit transactions for the mitigation bank. Each time an approved credit transaction occurs, the sponsor must notify the district engineer. The sponsor must compile an annual ledger report showing the beginning and ending balance of available credits of each resource type, all additions and subtractions of credits, and any other changes in credit availability (e.g., additional credits released, credit sales suspended). The ledger report must be submitted to the district engineer, who will distribute copies to the IRT members. The ledger report is part of the administrative record for the mitigation bank. The district engineer will make the ledger report available to the public upon request.

(2) *Monitoring reports.* The sponsor is responsible for monitoring the mitigation bank site in accordance with the approved monitoring requirements to determine the level of success and identify problems requiring remedial action. Monitoring must be conducted in accordance with the requirements in § 332.6, and at time intervals appropriate for the particular project type and until such time that the district engineer, in consultation with the IRT, has determined that the performance standards have been attained. The mitigation banking instrument must include requirements for periodic monitoring reports to be submitted to the district engineer, who will provide copies to other IRT members.

(m) *Use of credits.* All activities authorized by DA permits are eligible, at the discretion of the district engineer, to use a mitigation bank to compensate for unavoidable impacts to aquatic resources, such as streams and wetlands. The district engineer will determine the number and type(s) of credits required to compensate for the authorized impacts. Permit applicants may propose to use a particular mitigation bank to provide the required compensatory mitigation. The banker must provide the permit applicant with a statement of credit availability. The district engineer must review the permit applicant's compensatory mitigation proposal, and notify the applicant of his determination regarding the acceptability of using that mitigation bank. In making this determination, the district engineer must fully consider agency and public comments submitted as part of the permit review process. Use

of an approved mitigation bank consistent with the terms of its instrument (e.g., the permitted activity is located within the approved service area, credits are available for an appropriate resource type) will generally satisfy the requirement to use a watershed approach to determine compensatory mitigation requirements where feasible and considering opportunities for on-site, in-kind mitigation, as described in § 332.3(b).

(n) *IRT concerns with use of credits.* If, in the view of a member of the IRT, an issued permit or series of issued permits raises concerns about how credits from a particular mitigation bank are being used to satisfy compensatory mitigation requirements (including concerns about whether credit use is consistent with the terms of the mitigation banking instrument), the IRT member may notify the district engineer in writing of the concern and request an IRT consultation. The district engineer shall promptly consult with the IRT to address the concern. Final resolution of the concern is at the discretion of the district engineer, consistent with applicable statutes, regulations, and policies regarding compensatory mitigation requirements for DA permits.

(o) *Long-term management.* The legal mechanisms and the party responsible for the long-term management of the mitigation bank and the protection of the site must be documented in the mitigation banking instrument. The sponsor must make adequate provisions for the operation, maintenance, and long-term management of the mitigation bank site. The mitigation banking instrument may contain provisions for the sponsor to transfer long-term management responsibilities to a land stewardship entity, such as a public agency, non-governmental organization, or private land manager. Where needed, the acquisition and protection of water rights must be secured by the sponsor and documented in the mitigation banking instrument.

(p) *Grandfathering of existing mitigation banking instruments.* All mitigation banking instruments approved after [date 90 days after publication of final rule] must meet the requirements of this part. Mitigation banks approved prior to [date 90 days after publication of final rule] may continue to operate under the terms of their existing instruments. However, any modification to such a mitigation banking instrument after [date 90 days after publication of final rule], including authorization of additional sites under an umbrella mitigation banking instrument, must be consistent with the terms of this part.

§ 332.9 In-lieu fee programs.

(a) *Suspension of future authorizations.* As of [date 90 days after publication of final rule] district engineers will not authorize new in-lieu fee programs to provide compensatory mitigation for DA permits.

(b) *Transition period for existing in-lieu fee programs.* (1) In-lieu fee programs with an approved instrument in effect as of [date 90 days after publication of final rule] may continue to sell credits consistent with the terms of that instrument until [date 5 years and 90 days after publication of final rule]. Credits that have already been sold by the in-lieu fee program on or before this date (or the date resulting from an extended deadline, as provided in paragraph (b)(2) of this section) continue to be subject to the terms and conditions of the instrument for that in-lieu fee program.

(2) In-lieu fee programs that wish to continue operating beyond this date must reconstitute themselves as a mitigation bank, consistent with the requirements of this part. If an in-lieu fee program has submitted a prospectus satisfying the requirements of § 332.8(c)(2) by [date 4 years and 90 days after publication of final rule] and is making a good faith effort to complete the process of obtaining an approved mitigation banking instrument that satisfies the requirements of this part, the district engineer may extend the deadline for final approval of this instrument beyond [date 5 years and 90 days after publication of final rule] as necessary.

(3) If the district engineer determines that the substantive requirements of this part pertaining to mitigation banks are already satisfied by the existing in-lieu fee program instrument, any changes necessary to reconstitute the in-lieu fee program as a mitigation bank may be accomplished using the streamlined review process in § 332.8(f)(2), otherwise a new mitigation banking instrument must be developed using the procedure in § 332.8(c).

(4) Any in-lieu fee program that has not reconstituted itself as a mitigation bank by the applicable deadline in paragraphs (b)(1) or (b)(2) of this section must cease selling credits as of that date. However, any such in-lieu fee program is still responsible for providing all credits already sold, consistent with the terms of its instrument.

Dated: March 13, 2006.

John Paul Woodley, Jr.,
*Assistant Secretary of the Army (Civil Works),
Department of the Army.*

Environmental Protection Agency**40 CFR Chapter I**

For the reasons stated in the preamble, the Environmental Protection Agency proposes to amend 40 CFR part 230 as set forth below:

**PART 230—SECTION 404(b)(1)
GUIDELINES FOR SPECIFICATION OF
DISPOSAL SITES FOR DREDGED OR
FILL MATERIAL**

1. The authority citation for part 230 continues to read as follows:

Authority: Secs. 404(b) and 501(a) of the Clean Water Act of 1977 (33 U.S.C. 1344(b) and 1361(a)).

§ 230.12 [Amended]

2. In § 230.12(a)(2) revise the reference “subpart H” to read “subparts H and J”.

Subpart H—[Amended]

3. In subpart H the Note following the subpart heading is amended by adding a sentence to the end to read as follows:

Note: * * * Additional criteria for compensation measures are provided in Subpart J.

4. In § 230.75 add a new sentence after the second sentence in paragraph (d) to read as follows:

§ 230.75 Actions affecting plant and animal populations

* * * * *

(d) * * * Additional criteria for compensation measures are provided in Subpart J. * * *

* * * * *

5. Add Subpart J to part 230 to read as follows:

Subpart J—Compensatory Mitigation for Losses of Aquatic Resources

Sec.

230.91 Purpose and general considerations.

230.92 Definitions.

230.93 General compensatory mitigation requirements.

230.94 Planning and documentation.

230.95 Ecological performance standards.

230.96 Monitoring.

230.97 Management.

230.98 Mitigation banks.

230.99 In-lieu fee programs.

Subpart J—Compensatory Mitigation for Losses of Aquatic Resources**§ 230.91 Purpose and general considerations.**

(a) *Purpose.* (1) The purpose of this subpart is to establish standards and

criteria for the use of all types of compensatory mitigation, including on-site and off-site permittee-responsible mitigation, mitigation banks, and in-lieu fee mitigation to offset unavoidable impacts to waters of the United States authorized through the issuance of permits by the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344). This subpart implements Section 314(b) of the 2004 National Defense Authorization Act (Pub. L. 108–136), which directs that the standards and criteria shall, to the maximum extent practicable, maximize available credits and opportunities for mitigation, provide for regional variations in wetland conditions, functions, and values, and apply equivalent standards and criteria to each type of compensatory mitigation. This subpart is intended to further clarify mitigation requirements established under Corps and EPA regulations at 33 CFR part 320 and this part, respectively.

(2) These rules have been jointly developed by the Secretary of the Army, acting through the Chief of Engineers, and the Administrator of the Environmental Protection Agency. From time to time guidance on interpreting and implementing these rules may be prepared jointly by EPA and the U.S. Army Corps of Engineers at the national or regional level. No modifications to the basic application, meaning, or intent of these rules will be made without further joint rulemaking by the Secretary of the Army, acting through the Chief of Engineers and the Administrator of the Environmental Protection Agency pursuant to the Administrative Procedure Act (5 U.S.C. 551 *et seq.*).

(b) *Applicability.* This subpart does not alter the circumstances under which compensatory mitigation is required or the definition of “waters of the United States,” which is provided at § 230.3(s). 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.

(c) *Sequencing.* Pursuant to these requirements, the district engineer will issue a section 404 permit only upon a determination that the permit applicant has taken all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the United States. Practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. Compensatory mitigation for unavoidable impacts may be required to ensure that a section 404 activity

complies with this part of the Section 404(b)(1) Guidelines.

(d) *Accounting for regional variations.* Where appropriate, district engineers shall account for regional characteristics of aquatic resource types, functions, services, and values when determining performance standards and monitoring requirements for compensatory mitigation projects.

§ 230.92 Definitions.

For the purposes of this subpart, the following terms are defined:

Adaptive management means the development of a management strategy that anticipates the challenges associated with likely future impacts to the aquatic resource functions of the mitigation site. It acknowledges the risk and uncertainty of compensatory mitigation projects and allows modification of those projects to optimize performance. The process will provide guidance on the selection of appropriate remedial measures that will ensure the continued adequate provision of aquatic resource function and involves analysis of monitoring results to identify potential problems of a compensatory project and identification of measures to rectify those problems.

Buffer means an upland and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

Compensatory mitigation means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Compensatory mitigation project means a restoration, establishment, enhancement, and/or preservation activity implemented by the permittee as a requirement of a DA permit (i.e., permittee-responsible mitigation), or by a third party (e.g., a mitigation bank).

Credit means a unit of measure (e.g., a functional or area measure) representing the accrual or attainment of aquatic functions at a compensatory mitigation site. The measure of function is based on the aquatic resources restored, established, enhanced, or preserved.

DA means Department of the Army.

Days means calendar days.

Debit means a unit of measure (e.g., a functional or area measure) representing

the loss of aquatic functions at an impact or project site. The measure of function is based on the aquatic resources impacted by the authorized activity.

Enhancement means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation) means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland or deepwater site. Establishment results in a gain in aquatic resource area.

Functional capacity means the degree to which an area of aquatic resource performs a specific function.

Functions means the physical, chemical, and biological processes that occur in aquatic resources and other ecosystems.

Impact means adverse effect.

In-kind means a resource type that is structurally and/or functionally similar to the impacted resource type.

Interagency Review Team (IRT) means an interagency group of Federal, Tribal, State, and/or local regulatory and resource agency representatives that reviews documentation for, and advises the district engineer on, the establishment and management of a mitigation bank.

Mitigation bank means a site, or suite of sites, where aquatic resources such as wetlands or streams are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for authorized impacts to similar resources. Third-party mitigation banks generally sell compensatory mitigation credits to permittees whose obligation to provide mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are governed by a mitigation banking instrument.

Mitigation banking instrument means the legal document for the establishment, operation, and use of a mitigation bank.

Off-site means an area that is neither located on the same parcel of land as the impact site, nor on a parcel of land contiguous to or near the parcel containing the impact site.

On-site means an area located on the same parcel of land as the impact site,

or on a parcel of land contiguous to or near the impact site.

Out-of-kind means a resource type that is structurally and/or functionally different than the impacted resource type.

Performance standards are observable or measurable attributes that are used to determine if a compensatory mitigation project meets its objectives.

Permittee-responsible mitigation means an aquatic resource restoration, establishment, enhancement, and/or preservation activity undertaken by the permittee (or an authorized agent or contractor) to provide compensatory mitigation for which the permittee retains full responsibility.

Preservation means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Reference aquatic resources are aquatic resources that represent the range of variability exhibited by a regional class of aquatic resources as a result of natural processes and anthropogenic disturbances.

Rehabilitation means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riparian areas are lands adjacent to a waterbody. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas are

adjacent to streams, lakes, and estuarine-marine shorelines and provide a variety of ecological functions and services and help improve or maintain local water quality.

Service area means the geographic area within which impacts can be mitigated at a particular mitigation bank, as designated in its instrument.

Services means the benefits that human populations receive from functions that occur in aquatic resources and other ecosystems.

Sponsor means any public or private entity responsible for establishing and, in most circumstances, operating a mitigation bank.

Standard permit means a standard, individual permit issued under the authority of Section 404 of the Clean Water Act.

Values means the utility or satisfaction that humans derive from aquatic resource services. Values can be described in monetary terms or in qualitative terms, although many of the values associated with aquatic resources cannot be easily monetized. Values can be either use values (e.g., recreational enjoyment) or non-use values (e.g., stewardship, biodiversity).

Watershed plan means a plan developed by federal, tribal, state, and/or local government agencies, in consultation with relevant stakeholders. A watershed plan addresses ecological conditions in the watershed, multiple stakeholder interests, and land uses. Watershed plans may also identify priority sites for aquatic resource restoration and protection. Examples of watershed plans include special area management plans, advance identification programs, and watershed management plans.

§ 230.93 General compensatory mitigation requirements.

(a) *General considerations.* The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the United States authorized by DA permits. The district engineer must determine the compensatory mitigation to be required in a DA permit, based on what is available, practicable, and capable of compensating for the aquatic resource functions that will be lost as a result of the permitted activity. In making this determination, the district engineer must assess the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed, and the economic costs of the compensatory mitigation. Compensatory mitigation requirements

must be commensurate with the amount and type of impact that is associated with a particular DA permit. Permit applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts.

(b) *Location and type of compensatory mitigation.* (1) Where project impacts are located within the service area of an approved mitigation bank, and the mitigation bank has credits available for the type of resource impacted, the project's compensatory mitigation requirements may be met by the purchase of an appropriate number of credits from the mitigation bank.

(2) Where practicable and appropriate, the district engineer will require that the location and aquatic resource type of permittee-responsible compensatory mitigation necessary to offset anticipated impacts be consistent with an established watershed plan or be determined using the principles of a watershed approach as outlined in paragraph (c) of this section. The district engineer and the IRT should also use a watershed approach to the extent practicable in reviewing mitigation banking instruments.

(3) Where reliance on a watershed plan or approach is not practicable, the district engineer will consider opportunities to offset anticipated aquatic resource impacts by requiring on-site and in-kind compensatory mitigation. The district engineer must also consider the practicability of on-site compensatory mitigation and its compatibility with the proposed project.

(4) If, after considering opportunities for on-site, in-kind compensatory mitigation as provided in paragraph (b)(3) of this section, the district engineer determines that these compensatory mitigation opportunities are not practicable, are unlikely to compensate for the permitted activity, or will be incompatible with the proposed project, and an alternative, practicable off-site and/or out-of-kind mitigation opportunity is identified that has a greater likelihood of offsetting the permitted activity, the district engineer shall require that this alternative compensatory mitigation be provided. In general, compensatory mitigation should be located within the same watershed as the impact site, and should be located where it is most likely to successfully replace lost functions, services, and values, taking into account such watershed scale features as aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources (including the availability of water rights), and compatibility with adjacent land uses.

(c) *Watershed approach to compensatory mitigation.* (1) The district engineer must use a watershed approach to establish compensatory mitigation requirements in DA permits to the extent appropriate and practicable. Where an applicable watershed plan is available, the watershed approach should be based on the existing plan. Where no such plan is available, the watershed approach should be based on information provided by the project sponsor or available from other sources. The ultimate goal of a watershed approach is to maintain and improve the quality and quantity of aquatic resources within watersheds through strategic selection of compensatory mitigation sites.

(2) *Considerations.* (i) A watershed approach to compensatory mitigation considers the importance of landscape position and resource type of compensatory mitigation projects for the ecological functions and sustainability of aquatic resources within the watershed. Such an approach considers how the types and locations of compensatory mitigation projects will provide the desired aquatic resource functions, and will continue to function over time in a changing landscape. It also considers the habitat requirements of important species, habitat loss or conversion trends, sources of watershed impairment, and current development trends, as well as the requirements of other regulatory and non-regulatory programs that affect the watershed, such as storm water management or habitat conservation programs. It includes the protection and maintenance of terrestrial resources, such as non-wetland riparian areas and uplands, when those resources contribute to or improve the overall ecological functioning of aquatic resources in the watershed.

(ii) Locational factors (e.g., hydrology, surrounding land use) are important to the success of compensatory mitigation for impacted habitat functions and values and may lead to siting of such mitigation away from the project area. However, consideration should also be given to functions, services, and values (e.g., water quality, flood control, shoreline protection) that will likely need to be addressed at or near the areas impacted by the permitted project.

(iii) A watershed approach to compensatory mitigation may involve planning efforts to inventory historic and existing aquatic resources, including identification of degraded aquatic resources, and planning efforts to identify immediate and long-term aquatic resource needs within watersheds that can be met through

permittee-responsible mitigation projects or mitigation banks. Watershed planning efforts may identify and/or prioritize aquatic resources that are important for maintaining and restoring ecological functions of the watershed.

(3) *Information Needs.* The use of a watershed approach is based on analysis of information regarding watershed conditions and needs. Such information includes: Current trends in habitat loss or conversion, cumulative impacts of past development activities, current development trends, the presence and needs of sensitive species, site conditions that favor or hinder the success of mitigation projects, chronic environmental problems such as flooding or poor water quality, and local watershed goals and priorities. This information may be contained in an existing watershed plan or may be available from other sources. The level of information and analysis needed to support a watershed approach must be commensurate with the scope and scale of the proposed project requiring a DA permit, as well as the functions lost as a result of that project.

(d) *Site selection.* The compensatory mitigation project site must be ecologically suitable for providing the desired aquatic resource functions. In determining the ecological suitability of the compensatory mitigation project site, the district engineer must consider the following factors:

(1) Hydrological conditions, soil characteristics, and other physical and chemical characteristics;

(2) Watershed-scale features, such as aquatic habitat diversity, habitat connectivity, and other landscape scale functions;

(3) The size and location of the compensatory mitigation site relative to hydrologic sources (including the availability of water rights) and other ecological features;

(4) Compatibility with adjacent land uses and watershed management plans;

(5) Reasonably foreseeable effects the compensatory mitigation project will have on ecologically important aquatic or terrestrial resources (e.g., shallow sub-tidal habitat, mature forests), cultural sites, or habitat for Federally- or State-listed threatened and endangered species; and

(6) Other relevant factors including, but not limited to, development trends, anticipated land use changes, habitat status and trends, local or regional goals for the restoration or protection of particular habitat types or functions (e.g., re-establishment of habitat corridors or habitat for species of concern), water quality goals, floodplain management goals, and the relative

potential for chemical contamination of the aquatic resources.

(e) *Mitigation type.* (1) In general, in-kind mitigation is preferable to out-of-kind mitigation because it is most likely to compensate for the functions, services, and values lost at the impact site. For example, restoration of wetlands is most likely to compensate for unavoidable impacts to wetlands, while restoration of streams is most likely to compensate for unavoidable impacts to streams. Thus, except as provided in paragraph (e)(2) of this section, the district engineer should require that compensatory mitigation be of a similar type to the impacted aquatic resource.

(2) If the district engineer determines through the decision framework in paragraph (b) of this section that out-of-kind compensatory mitigation will serve the aquatic resource needs of the watershed, the district engineer may authorize the use of such out-of-kind compensatory mitigation. Factors that should be considered in making this determination include historic loss of habitat types within the watershed, the needs of sensitive species, appropriate mixes of habitat to maintain ecosystem viability, the relative likelihood of success in establishing different habitat types, needs for ecosystem services, and local watershed goals and priorities. The basis for authorization of out-of-kind compensatory mitigation must be documented in the administrative record for the permit action.

(f) *Amount of compensatory mitigation.* 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. The district engineer must require a mitigation ratio greater than one-to-one where necessary to account for the method of compensatory mitigation (e.g., preservation), differences between the functions lost at the impact site and the functions expected to be produced by the compensatory mitigation project, temporal losses of aquatic resource functions, and/or the difficulty of restoring or establishing the desired aquatic resource type and functions. The rationale for the required replacement ratio must be documented

in the administrative record for the permit action.

(g) *Use of mitigation banks.* Mitigation banks may be used to compensate for impacts to aquatic resources authorized by general permits and individual permits, including after-the-fact permits. Mitigation banks may also be used to satisfy requirements arising out of an enforcement action, such as supplemental environmental projects.

(h) *Preservation.* (1) Preservation may be used to provide compensatory mitigation for activities authorized by DA permits where:

(i) The resources provide important physical, chemical, or biological functions for the watershed;

(ii) The resources contribute to the ecological sustainability of the watershed;

(iii) Preservation is determined by the district engineer to be appropriate and practicable;

(iv) The resources are under threat of destruction or adverse modifications; and

(v) The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust).

(2) Where preservation is used to provide compensatory mitigation, to the extent appropriate and practicable the preservation shall be done in conjunction with aquatic resource restoration, establishment, and/or enhancement activities. This requirement may be waived by the district engineer where preservation has been identified as a high priority using a watershed approach, as described in paragraph (c) of this section, but compensation ratios should be higher.

(i) *Buffers.* District engineers may require that compensatory mitigation project sites include, and may provide compensatory mitigation credit for, the establishment and maintenance of riparian areas and/or upland buffers around the restored, established, enhanced, or preserved aquatic resources where necessary to ensure the long-term viability of those resources.

(j) *Relationship to other Federal, Tribal, State, and local programs.* Compensatory mitigation projects for DA permits may also be used to compensate for environmental impacts authorized under other programs, such as Tribal, State, or local wetlands regulatory programs, the National Pollutant Discharge Elimination System Permit Program, Corps civil works projects, and Superfund removal and remedial actions, consistent with the terms and requirements of these programs and subject to the following

considerations. The project must include appropriate compensatory mitigation for unavoidable impacts to aquatic resources authorized by the DA permit, over and above what would be required under other programs to address other impacts. Under no circumstances may the same credits be used to provide mitigation for more than one activity. However, where appropriate, compensatory mitigation projects, including mitigation banks, may be designed to holistically address requirements under multiple programs and authorities for the same activity. Except for projects undertaken by Federal agencies, or where Federal funding is specifically authorized to provide compensatory mitigation, Federally-funded wetland conservation projects undertaken for purposes other than compensatory mitigation, such as the Wetlands Reserve Program and the Partners for Wildlife Program activities, cannot be used for the purpose of generating compensatory mitigation credits for activities authorized by DA permits. However, compensatory mitigation credits may be generated by activities undertaken in conjunction with, but supplemental to, such programs in order to maximize the overall ecological benefits of the conservation project.

(k) *Permit conditions.* The compensatory mitigation requirements for a DA permit, including the amount and type of compensatory mitigation, must be clearly stated in the special conditions of the individual permit or general permit verification (see 33 CFR 325.4 and 330.6(a)). The special conditions must be enforceable and describe the objectives of the compensatory mitigation project. The special conditions must also identify the party responsible for providing the compensatory mitigation. The special conditions must incorporate, by reference, compensatory mitigation plans approved by the district engineer. The performance standards and monitoring required for the compensatory mitigation project must also be clearly stated in the special conditions or the approved compensatory mitigation plan. The special conditions must also describe any required financial assurances or long-term management provisions for the compensatory mitigation project. If a mitigation bank is used to provide the required compensatory mitigation, the special conditions must indicate which mitigation bank will be used, and specify the required number and type of credits the permittee is required to purchase.

(l) *Party responsible for compensatory mitigation.* (1) The special conditions of the DA permit must clearly indicate the party or parties responsible for the implementation, performance, and long-term management of the compensatory mitigation project.

(2) For mitigation banks, the mitigation banking instrument must clearly indicate the party or parties responsible for the implementation, performance, and long-term management of the compensatory mitigation project.

(3) If a mitigation bank is approved by the district engineer to provide required compensatory mitigation for a DA permit, the special conditions of that DA permit must indicate which mitigation bank will be used to provide that compensatory mitigation. In such cases, the mitigation bank assumes responsibility for providing the required compensatory mitigation after the permittee has secured those credits from the sponsor.

(m) *Timing.* Implementation of the compensatory mitigation project shall be, to the maximum extent practicable, in advance of or concurrent with the activity causing the authorized impacts. Where it is not practicable to complete the initial physical and biological improvements required by the approved mitigation plan by the first full growing season following the impacts resulting from the permitted activity, the district engineer may require additional compensatory mitigation to offset temporal losses of aquatic functions that will result from the permitted activity.

(n) *Financial assurances.* (1) The district engineer shall require sufficient financial assurances to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with applicable performance standards. In cases where an alternate mechanism is available to ensure a high level of confidence that the compensatory mitigation will be provided and maintained (e.g., a formal, documented commitment from a government agency or public authority) the district engineer may determine that financial assurances are not necessary for that compensatory mitigation project.

(2) The amount of the required financial assurances must be determined by the district engineer, in consultation with the project sponsor, and must be based on the size and complexity of the compensatory mitigation project, the degree of completion of the project at the time of project approval, the likelihood of success, the past performance of the project sponsor, and any other factors

the district engineer deems appropriate. Financial assurances may be in the form of performance bonds, escrow accounts, casualty insurance, letters of credit, legislative appropriations for government sponsored projects, or other appropriate instruments, subject to the approval of the district engineer. The rationale for determining the amount of the required financial assurances must be documented in the administrative record for the DA permit.

(3) Financial assurances shall be phased out once the compensatory mitigation project has been determined by the district engineer to be successful in accordance with its performance standards. The DA permit or mitigation banking instrument must clearly specify the conditions under which the financial assurances are to be released to the permittee, sponsor, and/or other financial assurance provider, including, as appropriate, linkage to achievement of performance standards, adaptive management, or compliance with special conditions.

(o) *Compliance with applicable law.* The compensatory mitigation project must comply with all applicable Federal, state, and local laws. The DA permit or mitigation banking instrument must not require participation by the Corps or any other Federal agency in project management, including receipt or management of financial assurances or long-term financing mechanisms, except as determined by the Corps or other agency to be consistent with its statutory authority, mission, and priorities.

§ 230.94 Planning and documentation.

(a) *Pre-application consultations.* Potential applicants for standard permits are encouraged to participate in pre-application meetings with the Corps and appropriate agencies to discuss potential compensatory mitigation requirements and information needs.

(b) *Public review and comment.* (1) For an activity that requires a standard DA permit pursuant to Section 404 of the Clean Water Act, the public notice for the proposed activity must explain how impacts associated with the proposed activity are to be avoided, minimized, and compensated for. This explanation shall address the amount, type, and location of any proposed compensatory mitigation, including any out-of-kind mitigation, or indicate an intention to use an approved mitigation bank. The level of detail provided in the public notice must be commensurate with the scope and scale of the project.

(2) For activities authorized by general permits, review of compensatory mitigation plans must be conducted in

accordance with the terms and conditions of those general permits and applicable regulations.

(c) *Mitigation plan.* (1) The permittee or mitigation bank sponsor 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 or sponsor must prepare a final mitigation plan, which must be approved by the district engineer prior to issuing the DA permit or approving the mitigation banking instrument. The approved mitigation plan must be incorporated into the DA permit or mitigation banking instrument by reference. The mitigation plan must include the items described in paragraphs (c)(2) through (c)(14) of this section, except that the district engineer may waive specific items if he determines that they are not applicable to a particular project. Permittees who plan to fulfill their compensatory mitigation obligations by purchasing credits from an approved mitigation bank need only include the name of the mitigation bank and the items described in paragraphs (c)(5) and (c)(6) of this section in their mitigation plan. The level of detail of the mitigation plan should be commensurate with the scale and scope of the project.

(2) *Objectives.* A description of the aquatic 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 aquatic resource functions of the compensatory mitigation project will address the needs of the watershed, ecoregion, 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.

(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.

(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, and other site characteristics. A prospective permittee planning to purchase credits from an approved mitigation bank only needs to provide baseline information about the impact site, not the mitigation bank 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. For permittee-responsible mitigation, this should include an explanation of how the compensatory mitigation project compensates for unavoidable impacts to aquatic resources resulting from the permitted activity. For mitigation banks, it should include a description of resource types for which the mitigation bank may be used as compensatory mitigation and the number of credits to be provided for each resource type. This may include provisions for adjusting credits in the future, both downward (if performance standards are not met) or upward (if performance standards are significantly exceeded). For permittees intending to purchase credits from an approved mitigation bank, it should include the number and type of credits to be purchased 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; plant species to be planted at the site; the use of natural regeneration or seed banks to provide the desired plant community at the site; plans to control invasive plant species; the proposed grading plan, including elevations and slopes of the substrate; erosion control measures; and proposed stream geomorphology, if applicable.

(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.

(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.

(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 the party responsible for long-term management and long-term financing mechanisms.

(12) *Adaptive management plan.* A description of procedures to address potential 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 conducting remediation to provide aquatic resource functions.

(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.

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

§ 230.95 Ecological performance standards.

The mitigation plan must contain performance standards that will be used to assess whether the project is achieving its objectives. Performance standards should relate to the objectives of the compensatory mitigation project, so that the project can be objectively evaluated to determine if it is developing into the desired resource type and providing the expected functions. Performance standards should be based on attributes that are objective, verifiable, and can be measured with a reasonable amount of effort. Performance standards may be based on variables or measures of functional capacity described in functional assessment methodologies, measurements of hydrology or other aquatic resource characteristics, and/or comparisons to reference aquatic resources of similar type and landscape position. Performance standards based on measurements of hydrology should take into consideration the hydrologic variability exhibited by reference aquatic resources, especially wetlands. Where practicable, performance standards should take into account the expected stages of the aquatic resource development process, in order to allow

early identification of potential problems and appropriate adaptive management.

§ 230.96 Monitoring.

(a) *General.* Monitoring the compensatory mitigation project site is necessary to determine if the project is meeting its performance standards, and to determine if remediation is necessary to ensure that the compensatory mitigation project is accomplishing its objectives. The district engineer must require the submission of monitoring reports to assess the development and condition of the compensatory mitigation project, unless he determines that monitoring is not practicable for that compensatory mitigation project. The mitigation plan must address the monitoring requirements for the compensatory mitigation project, including the parameters to be monitored, the length of the monitoring period, the party responsible for conducting the monitoring, the frequency for submitting monitoring reports to the district engineer, and the party responsible for submitting those monitoring reports to the district engineer.

(b) *Monitoring period.* The mitigation plan must provide for a monitoring period that is sufficient to demonstrate that the compensatory mitigation project has met performance standards, but not less than five years. A longer monitoring period must be required for aquatic resources with slow development rates (e.g., forested wetlands, bogs). Following project implementation, the district engineer may waive the remaining monitoring requirements upon a determination that the compensatory mitigation project has achieved its performance standards. Conversely the district engineer may extend the original monitoring period upon a determination that performance standards have not been met or the compensatory mitigation project is not on track to meet them. The district engineer may also revise monitoring requirements when remediation is required.

(c) *Monitoring reports.* (1) The district engineer must determine the information to be included in monitoring reports. This information should be sufficient for the district engineer to determine how the compensatory mitigation project is progressing towards meeting its performance standards, and may include plans, maps, and photographs to illustrate site conditions. 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.

(2) Monitoring reports should be provided by the district engineer to interested Federal, Tribal, State, and local resource agencies. The district engineer and representatives of Federal, Tribal, State, and/or local resource agencies may conduct regular (e.g., annual) on-site inspections, as appropriate, to monitor performance of the mitigation site. Monitoring reports must be made available to the public upon request.

§ 230.97 Management.

(a) *Site protection.* The aquatic habitats, riparian areas, buffers, and uplands that comprise the overall compensatory mitigation project should be provided long-term protection, through appropriate real estate instruments such as conservation easements held by, or transfer of title to, entities such as Federal, Tribal, State, or local resource agencies, non-profit conservation organizations, or private land managers, or other acceptable means for government property, such as Federal facility management plans or integrated natural resources management plans. The real estate instrument for the long-term protection of the compensatory mitigation site should restrict or prohibit incompatible uses (e.g., clear cutting) that might otherwise jeopardize the objectives of the compensatory mitigation project. Where appropriate, multiple instruments recognizing compatible uses (e.g., fishing or grazing rights) may be used.

(b) *Sustainability.* Compensatory mitigation projects should be designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context will support long-term sustainability. Where active long-term management and maintenance are necessary to ensure long-term sustainability (e.g., prescribed burning, invasive species control, maintenance of water control structures, easement enforcement), the responsible party must provide for such management and maintenance. This includes the provision of long-term financing mechanisms where necessary.

(c) *Adaptive management.* (1) If monitoring or other information indicates that the compensatory mitigation project is not progressing towards meeting its performance standards as anticipated, the responsible party must notify the district engineer.

The district engineer must require remediation to correct the deficiencies in the project to the extent appropriate and practicable. In determining appropriate and practicable remediation, the district engineer will consider whether the compensatory mitigation project is providing ecological benefits comparable to the original objectives of the compensatory mitigation project.

(2) The district engineer, in consultation with the responsible party (and other Federal, Tribal, state, and local agencies, as appropriate), will determine the appropriate remediation requirements. The required remediation may include site modifications, design changes, revisions to maintenance requirements, and revised monitoring requirements. The remediation must be designed to ensure that the modified compensatory mitigation project provides aquatic resource functions comparable to those described in the mitigation plan objectives.

(3) The performance standards must be revised where necessary to assess the success of remediation efforts and/or the realization of comparable ecological benefits that were considered in determining remediation requirements.

(d) *Long-term management.* (1) The permit conditions or mitigation banking instrument must identify the party responsible for the ownership and long-term management of the compensatory mitigation project, once performance standards have been achieved. The permit conditions or mitigation banking instrument may contain provisions allowing the permittee or sponsor to transfer the long-term management responsibilities of the compensatory mitigation project site to a land stewardship entity, such as a public agency, non-governmental organization, or private land manager, after review and approval by the district engineer. The land stewardship entity need not be identified in the original permit or mitigation banking instrument, as long as the future transfer of long-term management responsibility is approved by the district engineer.

(2) Provisions necessary for long-term financing must be included in the original permit or mitigation banking instrument. Appropriate long-term financing mechanisms include endowments, trusts, contractual arrangements with future responsible parties, and other appropriate financial instruments. In cases where the long-term management entity is a public authority or government agency, a formal commitment to accept stewardship responsibilities for the

project is acceptable in lieu of specific financial arrangements.

§ 230.98 Mitigation banks.

(a) *General considerations.* (1) All mitigation banks must have an approved instrument signed by the sponsor and the district engineer prior to being used to provide compensatory mitigation for DA permits. To the maximum extent practicable, mitigation banks must be planned and designed to be self-sustaining over time, but some active management and maintenance may be required to ensure their long-term viability and sustainability. Examples of acceptable management activities include maintaining fire dependent habitat communities in the absence of natural fire and controlling invasive exotic plant species.

(2) Mitigation banks may be sited on public or private lands. Siting on public land is only permitted when done in accordance with the mission and policies of the land management agency and with its written approval. Credits for mitigation banks on public land must be based solely on aquatic resource functions provided by the mitigation bank, over and above those provided by public programs already planned or in place.

(3) All mitigation banks must comply with the standards in this part, if they are to be used to provide compensatory mitigation for activities authorized by DA permits, regardless of whether they are sited on public or private lands and whether the sponsor is a governmental or private entity.

(b) *Interagency Review Team.* (1) The district engineer will establish an Interagency Review Team (IRT) to review documentation for the establishment and management of the mitigation bank. The district engineer or his designated representative serves as Chair of the IRT. In cases where a mitigation bank is proposed to satisfy the requirements of another Federal, Tribal, State, or local program, in addition to compensatory mitigation requirements of DA permits, the district engineer may designate an appropriate official of the responsible agency as co-Chair of the IRT.

(2) In addition to the Corps, representatives from the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, NOAA Fisheries, the Natural Resources Conservation Service, and other Federal agencies, as appropriate, may participate in the IRT. The IRT may also include representatives from Tribal, State, and local regulatory and resource agencies, where such agencies have authorities and/or mandates directly

affecting, or affected by, the establishment, operation, or use of the mitigation bank. The district engineer will seek to include all public agencies with a substantive interest in the establishment of the mitigation bank on the IRT, but retains final authority over its composition.

(3) The primary role of the IRT is to facilitate the establishment of mitigation banks through the development of mitigation banking instruments. The IRT will review the prospectus, mitigation plan, and mitigation banking instrument and provide comments to the district engineer. Members of the IRT may also sign the mitigation banking instrument, if they so choose. By signing the mitigation banking instrument, the IRT members indicate their agreement with the terms of the instrument. The IRT will also advise the district engineer in assessing monitoring reports, recommending remedial measures, approving credit release, and approving modifications to a mitigation banking instrument.

(4) The district engineer will give full consideration to the comments and advice of the IRT. However, the district engineer alone retains final authority for approval of the mitigation banking instrument. However, in cases where the mitigation bank is also intended to satisfy the requirements of another agency, that agency must also approve the mitigation banking instrument before it can be used to satisfy such requirements.

(c) *Review process.* (1) The sponsor is responsible for preparing all documentation associated with establishment of the mitigation bank, including the prospectus, mitigation plan, and mitigation banking instrument. The prospectus provides an overview of the mitigation bank project and serves as the basis for public and initial IRT comment. The mitigation plan, as described in § 230.94(c), provides detailed plans and specifications for the mitigation bank. The mitigation banking instrument provides the authorization for the mitigation bank to provide credits to be used as compensatory mitigation for DA permits. The mitigation banking instrument must also incorporate the mitigation plan by reference.

(2) *Prospectus.* The prospectus must provide a summary of the information that will be included in the mitigation plan, at a sufficient level of detail to support informed public and IRT comment. In particular, it must describe the objectives of the proposed mitigation bank, how the mitigation bank will be established and operated, the proposed service area, and the

general need for, and technical feasibility of, the proposed mitigation bank. The prospectus must discuss the ecological suitability of the site to achieve the objectives of the proposed mitigation bank. This includes the physical, chemical, and biological characteristics of the site and how that site will support the planned types of aquatic resources and functions. It should also discuss the proposed ownership arrangements and long-term management of the mitigation bank. The review process begins when the sponsor submits a complete prospectus to the district engineer. The district engineer will notify the sponsor within 15 days whether or not a submitted prospectus is complete.

(3) *Preliminary review of prospectus.* Prior to submitting a prospectus, the sponsor may elect to submit a draft prospectus to the district engineer for comment and consultation. The district engineer will provide copies of the draft prospectus to the IRT, and provide comments back to the sponsor within 30 days. Any comments from IRT members will also be forwarded to the sponsor. This preliminary review is optional but is strongly recommended. It is intended to identify potential issues early so that the sponsor may attempt to address those issues prior to the start of the formal review process.

(4) *Public review and comment.* Within 30 days of receipt of a complete prospectus, the district engineer will provide public notice of the proposed mitigation bank, in accordance with the public notice procedures at 33 CFR 325.3. The public notice must include a summary of the prospectus and indicate that the full prospectus is available to the public for review upon request. The comment period for public notice will generally be 30 days, unless the district engineer determines that a longer or shorter comment period is appropriate. The district engineer will notify the sponsor if the comment period is extended beyond 30 days, including an explanation of why the longer comment period is necessary. Copies of all comments received in response to the public notice must be distributed to the other IRT members and to the sponsor within 15 days of the close of the public comment period. The district engineer and IRT members may also provide comments to the sponsor at this time, and copies of any such comments will also be distributed to all IRT members. If the construction of a mitigation bank requires DA authorization through the standard permit process, the public notice requirement may be satisfied through the public notice provisions of the standard permit processing

procedures, provided all of the relevant information is provided.

(5) *Draft mitigation banking instrument.* After considering comments from the district engineer, the IRT, and the public, if the sponsor chooses to proceed with establishment of the mitigation bank, he must prepare a draft mitigation banking instrument and submit it to the district engineer. The draft mitigation banking instrument should be based on the prospectus and must describe in detail the physical and legal characteristics of the mitigation bank and how it will be established and operated. The draft mitigation banking instrument must include the following information:

(i) *Mitigation plan*, including all applicable items listed in § 230.94(c)(2) through (14);

(ii) *Geographic service area of the mitigation bank.* The service area is the watershed or other geographic area within which a mitigation bank is authorized to provide compensation for unavoidable impacts authorized by DA permits. The service area should be large enough to support an economically viable mitigation bank, but must not be larger than is appropriate to ensure that the aquatic resources provided by the mitigation bank will effectively compensate for adverse environmental impacts across the entire service area. The district engineer must consider relevant environmental and economic factors when approving the service area. The district engineer may also consider locally-developed standards and criteria. In urban areas, a U.S. Geological Survey 8-digit hydrologic unit code (HUC) watershed or a smaller watershed may be an appropriate service area. In rural areas, several contiguous 8-digit HUCs or a 6-digit HUC watershed may be an appropriate service area for the mitigation bank. The basis for determining the service area must be documented in writing and referenced in the mitigation banking instrument;

(iii) *Credit release schedule.* Credit release must be tied to achievement of specific milestones. If the mitigation bank does not achieve appropriate milestones (e.g., performance standards) as anticipated, the district engineer may modify the credit release schedule, including reducing the number of available credits or suspending credit sales altogether;

(iv) Accounting procedures;

(v) A provision stating that legal responsibility for providing the compensatory mitigation lies with the sponsor;

(vi) Default and closure provisions; and

(vii) Any other information deemed necessary by the district engineer.

(6) *IRT review.* Upon receiving a draft mitigation banking instrument, the district engineer must provide copies of the draft instrument to the IRT members for a 30 day comment period. Following the comment period, the district engineer will discuss any comments with the appropriate agencies and with the sponsor. The district engineer will seek to resolve any issues using a consensus-based approach. Within 90 days of receipt of the complete draft mitigation banking instrument, the district engineer must notify the sponsor of the status of the IRT review. Specifically, the district engineer must indicate to the sponsor if the draft mitigation banking instrument is generally acceptable and what changes, if any, are needed. If there are significant unresolved concerns that may lead to a formal objection from one or more IRT members to the final mitigation banking instrument, the district engineer will indicate the nature of those concerns.

(7) *Final mitigation banking instrument.* If the sponsor still wishes to proceed with establishment of the mitigation bank, he must submit a final mitigation banking instrument to the district engineer for approval. The final mitigation banking instrument should address any comments provided as a result of the IRT review process. The final mitigation banking instrument must be provided directly by the sponsor to all members of the IRT. Within 15 days of receipt of the final mitigation banking instrument, the district engineer will notify the IRT members whether or not he intends to approve the mitigation banking instrument. If no IRT member objects, by initiating the dispute resolution process in paragraph (d) of this section within 30 days of receipt of the final mitigation banking instrument, the district engineer will notify the sponsor of his final decision and, if the mitigation banking instrument is approved, arrange for it to be signed by the appropriate parties. If any IRT member initiates the dispute resolution process, the district engineer will notify the sponsor. Following conclusion of the dispute resolution process, the district engineer will notify the sponsor of his final decision, and if the mitigation banking instrument is approved, arrange for it to be signed by the appropriate parties. The final mitigation banking instrument must contain the types of information items

listed in paragraphs (c)(5)(i) through (vii) of this section.

(d) *Dispute resolution process.* (1) Within 15 days of receipt of the district engineer's notification of intent to approve a mitigation banking instrument, the Regional Administrator of the U.S. EPA, the Regional Director of the U.S. Fish and Wildlife Service, the Regional Director of the National Marine Fisheries Service, and/or other senior officials of agencies represented on the IRT may notify the district engineer and other IRT members by letter if they object to the approval of the proposed final mitigation banking instrument. This letter must include an explanation of the basis for the objection and, where feasible, offer recommendations for resolving the objections. If the district engineer does not receive any objections within this time period, he may proceed to final action on the mitigation banking instrument.

(2) The district engineer must respond to the objection within 30 days of receipt of the letter. The district engineer's response may indicate an intent to disapprove the mitigation banking instrument as a result of the objection, an intent to approve the mitigation banking instrument despite the objection, or may provide a modified mitigation banking instrument that attempts to address the objection. The district engineer's response must be provided to all IRT members.

(3) Within 15 days of receipt of the district engineer's response, if the Regional Administrator or Regional Director is not satisfied with the response he may forward the issue to the Assistant Administrator, Office of Water of the U.S. EPA, the Assistant Secretary for Fish and Wildlife and Parks of the U.S. FWS, or the Undersecretary for Oceans and Atmosphere of NOAA, as appropriate, for review and must notify the district engineer by faxed letter (with copies to all IRT members) that the issue has been forwarded for Headquarters review. This step is available only to the IRT members representing these three Federal agencies, however other IRT members who do not agree with the district engineer's final decision do not have to sign the mitigation banking instrument or recognize the mitigation bank for purposes of their own programs and authorities. If an IRT member other than the one filing the original objection has a new objection based on the district engineer's response, he may use the first step in this procedure (paragraph (d)(1) of this section) to provide that objection to the district engineer.

(4) If the issue has not been forwarded to the objecting agency's Headquarters, then the district engineer may proceed with final action on the mitigation banking instrument. If the issue has been forwarded to the objecting agency's Headquarters, the district engineer must hold in abeyance the final action on the mitigation banking instrument, pending Headquarters level review described below.

(5) Within 20 days from the date of the letter requesting Headquarters level review, the Assistant Administrator, Office of Water, the Assistant Secretary for Fish and Wildlife and Parks, or the Undersecretary for Oceans and Atmosphere must either notify the Assistant Secretary of the Army (Civil Works) (ASA(CW)) that further review will not be requested, or request that the ASA(CW) review the draft mitigation banking instrument.

(6) Within 30 days of receipt of the letter from the objecting agency's Headquarters request for ASA(CW)'s review of the draft mitigation banking instrument, the ASA(CW), through the Director of Civil Works, must review the draft mitigation banking instrument and advise the district engineer on how to proceed with final action on that instrument. The ASA(CW) must immediately notify the Assistant Administrator, Office of Water, the Assistant Secretary for Fish and Wildlife and Parks, and/or the Undersecretary for Oceans and Atmosphere of the final decision.

(7) In cases where the dispute resolution procedure is used, the district engineer must notify the sponsor of his final decision within 150 days of receipt of the final mitigation banking instrument.

(e) *Extension of deadlines.* (1) The deadlines in paragraphs (c) and (d) of this section may be extended by the district engineer at his sole discretion in cases where:

(i) Compliance with other applicable laws, such as Endangered Species Act Section 7 consultation, is required;

(ii) Timely submittal of information necessary for the review of the proposed mitigation bank is not accomplished by the sponsor; or

(iii) Information that is essential to the district engineer's response cannot be reasonably obtained within the specified time frame.

(2) In such cases, the district engineer must promptly notify the sponsor in writing of the extension and the reason for it. Such extensions shall be for the minimum time necessary to resolve the issue necessitating the extension.

(f) *Modification of mitigation banking instruments.* (1) In general, modification

of an approved mitigation banking instrument must follow the procedures in paragraph (c) of this section, unless the district engineer determines that the streamlined review process described in paragraph (f)(2) of this section is warranted. The streamlined review process may be used for changes reflecting adaptive management of the mitigation bank, changes in credit release schedules, and changes that the district engineer determines are non-significant.

(2) If the district engineer determines that the streamlined review process is warranted, he must notify the IRT members and the sponsor of this determination and provide them with copies of the proposed modification. IRT members and the sponsor have 30 days to notify the district engineer if they have concerns with the proposed modification. If IRT members or the sponsor notify the district engineer of such concerns, the district engineer shall attempt to resolve those concerns. Within 60 days of providing the proposed modification to the IRT, the district engineer must notify the IRT members of his intent to approve or disapprove the proposed modification. If no IRT member objects, by initiating the dispute resolution process in paragraph (d) of this section, within 15 days of receipt of this notification, the district engineer will notify the sponsor of his final decision and, if the modification is approved, arrange for it to be signed by the appropriate parties. If any IRT member initiates the dispute resolution process, the district engineer will so notify the sponsor. Following conclusion of the dispute resolution process, the district engineer will notify the sponsor of his final decision, and if the modification is approved, arrange for it to be signed by the appropriate parties.

(g) *Umbrella mitigation banking instruments.* A single mitigation banking instrument may provide for future authorization of additional mitigation bank sites. As additional sites are selected, they must be included in the mitigation banking instrument as modifications, using the procedures in paragraph (c) of this section.

(h) *Coordination of mitigation banking instrument and DA permit issuance.* In cases where initial establishment of the mitigation bank involves activities requiring DA authorization, the permit should not be issued until all relevant provisions of the mitigation banking instrument have been substantively determined. This is to ensure that the DA permit accurately reflects all relevant provisions of the final mitigation banking instrument.

(i) *Project implementation.*

Authorization to sell credits to satisfy compensatory mitigation requirements in DA permits is contingent on compliance with all of the terms of the mitigation banking instrument. This includes constructing a mitigation bank in accordance with the mitigation plan as approved by the district engineer and incorporated by reference in the mitigation banking instrument. If the aquatic resource restoration, establishment, enhancement, and/or preservation activities cannot be implemented in accordance with the approved mitigation plan, the district engineer must consult with the sponsor and the IRT to consider modifications to the mitigation banking instrument, including adaptive management, revisions to the credit release schedule, and alternatives for providing compensatory mitigation to satisfy any credits that have already been sold.

(j) *Credit withdrawal from mitigation banks.* The mitigation banking instrument may allow for initial debiting of a percentage of the total credits projected at mitigation bank maturity provided the following conditions are satisfied: the mitigation banking instrument and mitigation plan have been approved, the mitigation bank site has been secured, appropriate financial assurances have been established, and any other requirements determined to be necessary by the district engineer have been fulfilled. The mitigation banking instrument must provide a schedule for additional credit releases as appropriate milestones are achieved (see paragraph (k)(7) of this section).

(k) *Determining credits.* (1) *Units of measure.* For mitigation banks, the principal units for credits and debits are acres or linear feet or functional assessment units of particular resource types. Functional assessment units may be linked to acres or linear feet.

(2) *Functional assessment.* Where practicable, an appropriate functional assessment method (e.g., hydrogeomorphic approach to wetlands functional assessment) must be used to assess and describe the aquatic resource types that will be restored, established, enhanced and/or preserved by the mitigation bank.

(3) *Credit production.* The number of credits must reflect the difference between pre- and post-mitigation bank site conditions. If an existing resource is being enhanced, the number of credits should reflect only the enhancements produced by construction of the mitigation bank. This may be reflected in a discounted number of credits

relative to the total acres or linear feet encompassed by the mitigation bank.

(4) *Credit value.* Once a credit is debited, its value cannot change.

(5) *Credits provided by preservation.* These credits should be specified as acres or linear feet of preservation of a particular resource types. In determining the compensatory mitigation requirements for DA permits using the mitigation bank, the district engineer should apply a higher mitigation ratio if the requirements are to be met through the use of preservation credits. In determining this higher ratio, the district engineer must consider the relative importance of both the impacted and the preserved aquatic resources in sustaining watershed functions as described in § 230.93(c).

(6) *Credits provided by riparian areas, buffers, and uplands.* These credits should be specified as acres or linear feet of riparian area, buffer, and uplands respectively. Non-aquatic resources can only be used as compensatory mitigation for impacts to aquatic resources authorized by DA permits when those resources are essential to maintaining the ecological viability of adjoining aquatic resources. In determining the compensatory mitigation requirements for DA permits using the mitigation bank, 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 as described in § 230.93(c) and are the most appropriate compensation for the authorized impacts.

(7) *Credit release schedule.* The terms of the credit release schedule must be specified in the mitigation banking instrument. The credit release schedule may provide for release of a limited portion of projected credits once the mitigation banking instrument, including the mitigation plan, has been approved, the site secured, and appropriate financial assurances established. Release of the remaining credits must be tied to performance based milestones (e.g., construction, planting, establishment of specified plant and animal communities). The credit release schedule should reserve a significant share of the total credits for release only after full achievement of ecological performance standards. When determining the credit release schedule, factors to be considered may include, but are not limited to: the method of providing compensatory mitigation credits (e.g., restoration), the likelihood of success, the nature and amount of work needed to generate the mitigation bank credits, the aquatic resource

type(s) and function(s) to be provided by the mitigation bank, and the initial capital costs needed to establish the mitigation bank. Once released, credits may only be used to satisfy compensatory mitigation requirements in a DA permit if they have been specifically approved by the district engineer as part of the permit review process.

(8) *Release of credits.* Credit releases must be approved by the district engineer. The sponsor must submit documentation to the district engineer demonstrating that the appropriate milestones for a release of credits have been achieved and requesting the release. The district engineer will provide copies of this documentation to the IRT members for review. IRT members must provide any comments to the district engineer within 15 days of receiving this documentation. However, if the district engineer determines that a site visit is necessary, IRT members must provide any comments to the district engineer within 30 days of receipt of this documentation. After full consideration of any comments received, the district engineer will determine whether the milestones have been achieved and the credits can be released.

(9) *Adjustments to credit totals and release schedules.* (i) If, after achieving all performance standards as specified in the mitigation banking instrument, the sponsor finds that the mitigation bank has developed aquatic resource functions substantially in excess of those upon which the original credit totals and release schedule were based, he may request that the mitigation banking instrument be amended in accordance with the procedures in paragraph (f) of this section. This request must include detailed documentation of the aquatic resource functions provided by the mitigation bank site, an explanation of how those aquatic resource functions substantially exceed the functions upon which the original credit totals were based, an explanation of the basis for calculating the additional credits, and any other information deemed necessary by the district engineer.

(ii) If the district engineer determines that the mitigation bank is not meeting performance standards, he may reduce the number of available credits or suspend credit sales. The district engineer may also require adaptive management and/or direct the use of financial assurances for remediation.

(l) *Reporting.* (1) *Ledger account.* The mitigation banking instrument must contain a provision requiring the sponsor to establish and maintain a

ledger to account for all credit transactions for the mitigation bank. Each time an approved credit transaction occurs, the sponsor must notify the district engineer. The sponsor must compile an annual ledger report showing the beginning and ending balance of available credits of each resource type, all additions and subtractions of credits, and any other changes in credit availability (e.g., additional credits released, credit sales suspended). The ledger report must be submitted to the district engineer, who will distribute copies to the IRT members. The ledger report is part of the administrative record for the mitigation bank. The district engineer will make the ledger report available to the public upon request.

(2) *Monitoring reports.* The sponsor is responsible for monitoring the mitigation bank site in accordance with the approved monitoring requirements to determine the level of success and identify problems requiring remedial action. Monitoring must be conducted in accordance with the requirements in § 230.96, and at time intervals appropriate for the particular project type and until such time that the district engineer, in consultation with the IRT, has determined that the performance standards have been attained. The mitigation banking instrument must include requirements for periodic monitoring reports to be submitted to the district engineer, who will provide copies to other IRT members.

(m) *Use of credits.* All activities authorized by DA permits are eligible, at the discretion of the district engineer, to use a mitigation bank to compensate for unavoidable impacts to aquatic resources, such as streams and wetlands. The district engineer will determine the number and type(s) of credits required to compensate for the authorized impacts. Permit applicants may propose to use a particular mitigation bank to provide the required compensatory mitigation. The banker must provide the permit applicant with a statement of credit availability. The district engineer must review the permit applicant's compensatory mitigation proposal, and notify the applicant of his determination regarding the acceptability of using that mitigation bank. In making this determination, the district engineer must fully consider agency and public comments submitted as part of the permit review process. Use of an approved mitigation bank consistent with the terms of its instrument (e.g., the permitted activity is located within the approved service area, credits are available for an appropriate resource type) will

generally satisfy the requirement to use a watershed approach to determine compensatory mitigation requirements where feasible and considering opportunities for on-site, in-kind mitigation, as described in § 332.3(b).

(n) *IRT concerns with use of credits.* If, in the view of a member of the IRT, an issued permit or series of issued permits raises concerns about how credits from a particular mitigation bank are being used to satisfy compensatory mitigation requirements (including concerns about whether credit use is consistent with the terms of the mitigation banking instrument), the IRT member may notify the district engineer in writing of the concern and request an IRT consultation. The district engineer shall promptly consult with the IRT to address the concern. Final resolution of the concern is at the discretion of the district engineer, consistent with applicable statutes, regulations, and policies regarding compensatory mitigation requirements for DA permits.

(o) *Long-term management.* The legal mechanisms and the party responsible for the long-term management of the mitigation bank and the protection of the site must be documented in the mitigation banking instrument. The sponsor must make adequate provisions for the operation, maintenance, and long-term management of the mitigation bank site. The mitigation banking instrument may contain provisions for the sponsor to transfer long-term management responsibilities to a land stewardship entity, such as a public agency, non-governmental organization, or private land manager. Where needed, the acquisition and protection of water rights must be secured by the sponsor

and documented in the mitigation banking instrument.

(p) *Grandfathering of existing mitigation banking instruments.* All mitigation banking instruments approved after [date 90 days after publication of final rule] must meet the requirements of this part. Mitigation banks approved prior to [date 90 days after publication of final rule] may continue to operate under the terms of their existing instruments. However, any modification to such a mitigation banking instrument after [date 90 days after publication of final rule], including authorization of additional sites under an umbrella mitigation banking instrument, must be consistent with the terms of this part.

§ 230.99 In-lieu fee programs.

(a) *Suspension of future authorizations.* As of [date 90 days after publication of final rule] district engineers will not authorize new in-lieu fee programs to provide compensatory mitigation for DA permits.

(b) *Transition period for existing in-lieu fee programs.* (1) In-lieu fee programs with an approved instrument in effect as of [date 90 days after publication of final rule] may continue to sell credits consistent with the terms of that instrument until [date 5 years and 90 days after publication of final rule]. Credits that have already been sold by the in-lieu fee program on or before this date (or the date resulting from an extended deadline, as provided in paragraph (b)(2) of this section) continue to be subject to the terms and conditions of the instrument for that in-lieu fee program.

(2) In-lieu fee programs that wish to continue operating beyond this date

must reconstitute themselves as a mitigation bank, consistent with the requirements of this subpart. If an in-lieu fee program has submitted a prospectus satisfying the requirements of § 230.98(c)(2) by [date 4 years and 90 days after publication of final rule] and is making a good faith effort to complete the process of obtaining an approved mitigation banking instrument that satisfies the requirements of this subpart, the district engineer may extend the deadline for final approval of this instrument beyond [date 5 years and 90 days after publication of final rule] as necessary.

(3) If the district engineer determines that the substantive requirements of this subpart pertaining to mitigation banks are already satisfied by the existing in-lieu fee program instrument, any changes necessary to reconstitute the in-lieu fee program as a mitigation bank may be accomplished using the streamlined review process in § 230.98(f)(2), otherwise a new mitigation banking instrument must be developed using the procedure in § 230.98(c).

(4) Any in-lieu fee program that has not reconstituted itself as a mitigation bank by the applicable deadline in paragraphs (b)(1) or (b)(2) of this section must cease selling credits as of that date. However, any such in-lieu fee program is still responsible for providing all credits already sold, consistent with the terms of its instrument.

Dated: March 23, 2006.

Stephen L. Johnson,
Administrator, U.S. Environmental Protection Agency.

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