Response to Comments Public Notice: Proposed Revision of New England District Compensatory Mitigation Guidance 19 November 2010

Ten commenters responded to the 15 December 2009 draft version of the proposed revision of New England District Compensatory Mitigation Guidance (Guidance). Below are the comments on the public notice and the Corps' responses (in *italics*) to these comments.

1. Some typographical errors and incorrect internet addresses were noted. *These have been corrected.*

2. There were several recommendations for language changes in specific portions of the proposed Guidance.

Many of these have been accepted, as appropriate. Where recommendations were made to reword direct quotes from other sources (e.g., the Mitigation Rule), these were not made.

3. One commenter wondered if there was an impact area threshold above which the ratios for temporary and secondary would apply or would it be for all projects. They also asked if compensation for clearing of upland buffer within 100 feet of streams was intended to apply to all projects and clearing or was there an impact area threshold.

No set threshold exists; decisions on when compensatory mitigation is needed are project-specific. Regarding clearing of upland buffer, this must be a secondary impact of a jurisdictional activity in order to trigger any compensatory mitigation requirements.

4. Three commenters asked how the new ratios were determined. The recommended compensatory mitigation amounts for temporary and secondary impacts are not actually ratios. The amounts are based on a percentage or range of percentages of the recommended ratios for permanent, direct impacts. The percentages for temporary impacts were based primarily on best professional judgment evaluating relative times it took for re-establishment of vegetative communities and structure. The majority of secondary impacts are to be assessed on a project-specific basis.

5. Two commenters were concerned about the possibility of requiring compensatory mitigation for any tree clearing in wetlands or stream buffer as part of safety requirements for removing airspace obstructions. *In order to trigger any requirements for compensatory mitigation, there must be some primary impact resulting from a jurisdictional activity. Mere clearing of*

vegetation where here is no fill or earth movement typically does not provide such a trigger. If no permit is required, no compensatory mitigation is required.

6. One commenter requested that the Corps move beyond ratios and consider the use of a project-specific compensatory mitigation calculator tool. *We are not opposed to the use of such a tool; however, most of these tools rely on a method of quantitative functional assessment which we do not presently have available. Development of such a tool in the future is possible.*

7. One commenter recommended that intertidal mudflat areas be included along with the other specific aquatic resources receiving specialized compensatory mitigation guidance.

This is possible if we receive resource-specific recommendations for intertidal mudflats from the National Marine Fisheries Service and appropriate state resource agencies.

8. One commenter questioned why the guidance offered no discussion of In-Lieu Fee programs or mitigation banks since they indicated that both were present in New England.

At present, there are not, nor have there ever been, any federally-authorized mitigation banks in New England. Full service In-Lieu Fee programs are relatively recent here and are only present in New Hampshire and Maine. Massachusetts has an In-Lieu Fee program only for Essential Fish Habitat. Since both of these options are non-existent for the majority of New England at this time, we did not feel it appropriate to discuss these options independently from permittee-responsible compensatory mitigation. As these programs become more widespread in New England, subsequent versions of this Guidance will include appropriate discussion. Banks and In-Lieu Fee programs will be held to the same standards as permittee-responsible mitigation plan requirements.

9. One commenter wanted the guidance to clarify Corps policy on "trading of resources" with regard to fishery habitat and how this would be accounted for in the mitigation ratio.

The Corps has no set policy on trading of resources and these issues are reviewed on a project-specific basis.

10. One commenter wanted the Corps to provide their policy on the preferred sequence of "in-kind" and "geographically appropriate service area" in cases where they are not achievable simultaneously.

The Corps has no set policy on this issue and such projects are reviewed on a project-specific basis.

11. One commenter noted that restoration was the preferred form of compensatory mitigation, but wanted a stated sequential preference for compensatory mitigation involving creation, enhancement, and preservation.

Since the goal of compensatory mitigation is to have no overall net loss of aquatic resource function within the watershed context, having a rigid sequential preference would not be useful. This greater flexibility is designed to get the best compensatory mitigation for the specific project and location.

12. One commenter recommended that due to the relative inexperience at restoring intertidal mudflats, the mitigation ratio for these systems should be increased.

This could be considered once we receive specific recommendations for appropriate ratios for intertidal mudflats from the National Marine Fisheries Service and appropriate state resource agencies.

13. Two¹ commenters were concerned that the first example for temporal losses was for wildlife habitat and ecosystem support functions in forested wetlands and that an increased compensatory mitigation ratio would not replace these functions since they are not area sensitive. They state that the requirement for mitigating temporal losses is not based in science. This is true for some aquatic resource systems and some functions. However, there are many functions which are area sensitive and an increased compensatory mitigation ratio is necessary for restoring the original level of function impacted. Regarding scientific bases for these recommendations (as well as similar ones which have been in national compensatory mitigation guidance since at least 1990), a scientific and policy background was provided on our website for over two years following the original establishment of recommended ratios in this District in December 2007. This is not a new section of our guidance and has been in place since at least January 2007.

14. Two² commenters were confused by the reference to "upland used for wetland mitigation" in Table 1, thinking it meant the need for mitigating impacts to uplands which were impacted by use as mitigation. *This does not refer to compensatory mitigation requirements for impacts to uplands, but for what ratio is recommended when uplands are used as mitigation for aquatic resource impacts. For example, a 1-acre aquatic resource impact could potentially be mitigated by 15 acres of upland buffer preservation (ratio of 15:1).*

15. Five³ commenters were concerned that the compensatory mitigation recommendations for secondary impacts (e.g., clearing of upland forest within 100 feet of a stream, clearing within vernal pool envelope) were not within the Corps' jurisdiction as they were to uplands.

¹ One comment was from a private firm and one was from a state highway department. Due to identical wording in many parts of the comments, it is clear that they were from an identical source.

 $^{^{2}}$ One comment was from a private firm and one was from a state highway department. Due to identical wording in many parts of the comments, it is clear that they were from an identical source.

³ Of the five comments, one comment was from a private firm and one was from a state highway department that, due to identical wording in many parts of the comments, is clear they were from an identical source.

The Corps does not regulate impacts to uplands and other non-jurisdictional areas. However, if a permit is required for some portion of a project, the Corps is required to evaluate secondary impacts to aquatic resources (in the instance above, the stream or vernal pool) and **on a project-specific basis**, determine if compensatory mitigation should be required for these secondary impacts to aquatic resources. It is not the direct impacts to uplands that the Corps is concerned with, but the secondary effects this has on the aquatic resources (e.g., removal of critical habitat for vernal pool species affecting pool-utilizing populations, increased stream sedimentation, increased stream temperatures, etc.).

The Corps regulations at 33 CFR 320.4(r)(1)(ii) state in part that "[f]or Section 404 applications, mitigation shall be required to ensure that the project complies with the 404(b)(1) Guidelines," which require the Corps to evaluate all primary **and secondary** impacts of a project on the aquatic environment (40 CFR 230.11(h)). For determining mitigation compliance with the 404(b)(1) Guidelines, the 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" (Mitigation MOA) is used. The Mitigation MOA in turn notes that "[a]ppropriate and practicable compensatory mitigation is required for unavoidable adverse impacts which remain after all appropriate and practicable minimization has been required."

In addition to the Clean Water Act, the Corps must comply with the National Environmental Policy Act (NEPA), which requires the Corps to evaluate all direct and indirect effects of a project on the environment (40 CFR 1508.8). NEPA equates effects and impacts, and also notes compensatory mitigation as compensating for impacts by replacing or providing substitute resources or environments.

16. Two⁴ commenters were concerned that vernal pools had no official Corps definition and as such were undeserving of special protection. *If vernal pools are considered wetlands, then they are special aquatic sites under the Clean Water Act. The intention is not to treat them differently based on definition, but to recognize unique functional characteristics and provide appropriate compensatory mitigation for this aquatic resource.*

17. Two⁵ commenters were concerned with the requirement for protection of compensatory mitigation sites "in perpetuity," particularly annual monitoring

⁴ One comment was from a private firm and one was from a state highway department. Due to identical wording in many parts of the comments, it is clear that they were from an identical source.

⁵ One comment was from a private firm and one was from a state highway department. Due to identical wording in many parts of the comments, it is clear that they were from an identical source.

concerns that a public transportation department would not be able to implement.

It appears that the commenters confused monitoring with long-term protections. Monitoring requirements are only for the period identified in the permit conditions. However, as stated in the Corps regulations at 33 CFR 332.7 ("Mitigation Rule"), "the overall compensatory mitigation project must be provided long-term protection." It is generally recommended that a conservation easement held by an appropriate third party is an effective way of achieving this. It is not the mission of public transportation departments to be conservation land stewards long-term so generally a public or private conservation entity would be needed as a long-term steward.

18. One commenter was confused by the definition of "wetland creation," particularly the reference to filling deepwater habitats to create wetlands. When deepwater habitats are filled to create wetland, this is considered a gain in wetland acreage since deepwater habitats are not considered wetlands. However, since the site was already an aquatic resource and potential water of the U.S., this does not result in a gain of aquatic resource acreage or likely change the status as a water of the U.S.

19. One commenter wondered if the recommended mitigation ratios in Table 1 included temporal impacts.

Yes, Table 1 includes temporal impacts associated with the direct impacts.

20. One commenter felt that the statement "all projects that do not have mitigation in advance of impacts will result in temporal losses" would apply to all projects and therefore add nothing.

Although we do not currently have mitigation banks in New England, these are precisely the situations where compensatory mitigation may be constructed and functioning in advance of impacts. We do occasionally see advanced compensatory mitigation and this is another situation where there may not be temporal impacts.

21. One commenter noted that the implied presumption that mitigation areas are deficient in providing water quality functions on a short temporal scale is not supported by science.

It is supported by peer-reviewed literature as cited in the scientific and policy background that was provided on our website for over two years following the original establishment of recommended ratios in this district in December 2007. Since much of the water quality functions are dependent on soil fauna and vegetative composition, time is an important factor in development of these functions.

22. Two commenters noted that project impacts along an existing highway would only be to the highly degraded adjacent areas and compensatory mitigation should be accordingly determined.

This may be correct for direct impacts, but the secondary impacts of this type of work typically degrades the higher-functioning systems adjacent to them and turning them into the new highly-degraded areas. The net impact is to the higher-functioning systems. Compensatory mitigation would be based on the overall impacts to aquatic resource functions.

23. One commenter made several arguments for allowing compensatory mitigation for highway work to occur adjacent to the highway, including identifying these areas as degraded systems.

Degraded systems are typically preferred for locating compensatory mitigation so that other valuable systems are not impacted, but it is not appropriate if the cause of degradation is ongoing and the compensation site will be degraded. It has long been recognized that siting compensatory mitigation projects adjacent to impact areas, where impacts result in degradation of adjacent resources, does not provide adequate replacement of functions. Under Corps regulations at 33 CFR 332.3(d)(1), the "compensatory mitigation project site must be ecologically suitable for providing the desired aquatic resource functions." A factor to consider here is compatibility of adjacent land uses. Five of six of New England's state highway departments already recognize this concern and usually propose locating compensatory mitigation away from highway impacts.

24. One commenter was concerned that any requirement for mitigating temporary and secondary impacts would increase the cost of mitigation and projects as a whole.

Increased project costs are likely to occur; however, there are costs to the net loss of wetland functions and services and those are currently being borne by the adjacent property owners and/or public. No net increases in societal costs are expected.

25. One commenter expressed concerns with elements of the Mitigation Rule. *This is a federal regulation that has undergone formal rule-making and cannot be modified.*

26. Two commenters were concerned that the District's recommendations for compensatory mitigation for temporary impacts were at odds with "national rulemakings," which they quoted as "temporary impacts to waters of the United Sates ... do not result in permanent losses and generally do not require compensatory mitigation" 72 Fed. Reg. at 11,163.'

The cited "national rulemakings" is actually a quote from the response to comments portion of the 2007 reauthorization of the Nationwide Permits notice and not part of the regulations. The statement taken within its original context concerns the requirement for minimization of temporary impacts and not whether temporary impacts should or should not require compensatory mitigation. "Temporary impacts" are often not temporary. Removal of woody vegetation often takes decades to replace and some functions may take much longer to be restored, if at all. While truly short-term impacts may not need compensatory mitigation (and the flexibility of this Guidance recognizes that), the Mitigation Rule makes it very clear that temporal loss is a concern and may require compensatory mitigation in excess of 1:1 replacement. Restoration of temporary impacts in place does not insure that impacted functions will return any more quickly than at another compensatory mitigation site.

27. One commenter expressed concern that the District was incorrect when stating that this Guidance was intended to bring the District into compliance with the Mitigation Rule when they believed the Mitigation Rule did not change when mitigation was required (i.e., for temporary and secondary impacts). *The Guidance does include many elements meant to bring the District into compliance with the Mitigation Rule; however, many elements of the guidance are directed toward technical and policy elements which have been part of District compensatory mitigation for some time and are consistent with the Rule. The recommendations for compensatory mitigation for secondary and temporary impacts are not new at this District and have been required as permit conditions for some projects for the past several years. Including specific recommendations now is intended to help provide consistency in this area.*

28. One commenter made extensive use of the Corps' Nationwide Permit regulations for arguing against any compensatory mitigation for secondary and temporary impacts.

Aside from the revocation of all Nationwide Permits in New England since the 1990s, the requirements of these general permits are not always the same as for all permits in general. The assumption that they will have minimal cumulative effects drives much of the compensatory mitigation discussion and concerns. National compensatory mitigation regulation and policy is not expressed in the Nationwide Permit regulations.

29. One commenter wanted the Guidance to specifically provide District regulators with greater flexibility.

The Guidance is intended to provide a starting point for developing appropriate compensation, which still will be reviewed on a project-specific basis to compensate for impacted functions. Recommended ratios have now been in place for nearly three years, during which time there has been considerable flexibility in their application.

30. One commenter was concerned with the recommendation for compensatory mitigation for temporary impacts resulting from the use of swamp mats.

In those instances where swamp mats are regulated, their impacts must also be considered when developing compensatory mitigation plans. While their use may help minimize impacts, they are not always without impact, sometimes permanent. The compaction, changes in elevation, scrambling of the soil profile, long-term removal of vegetation, and increased opportunity for establishment of invasive species are only some of the reasons why compensatory mitigation may be required for permitted impacts resulting from the use of swamp mats. The commenter notes swamp mats are in place for only 4-6 weeks, but we have reviewed projects where they are proposed to be in place for 1-2 years.

31. One commenter was concerned that compensatory mitigation for secondary impacts resulting from conversion of forested wetlands to scrub-shrub or emergent wetlands was a shift in policy as this activity did not result in a loss of wetland function.

Requiring compensatory mitigation for secondary impacts resulting from conversion of forested wetlands to scrub-shrub or emergent wetlands is not new with this Guidance and has been required for several projects throughout New England (and other parts of the country) over the past several years. Loss of forested wetland results is a loss of aquatic resource function, regardless of whether there is an increase in emergent aquatic resource function.

32. Two commenters noted that the Guidance should state that there may be situations where no compensatory mitigation is required for impacts resulting from linear projects.

Compensatory mitigation requirements are made on a project-specific basis and the finding that no compensatory mitigation is required may be for any project where the District Engineer so finds. This Guidance is intended to continue the flexibility that has existed in determining compensatory mitigation requirements.

33. One commenter noted that since this was a guidance document, words like "required" and "shall," should be replaced by "suggested," "recommended," or "may."

Some of these have been changed. Where quotes were taken directly from other sources (e.g., Mitigation Rule), wording was not changed. In some instances, the original wording was intended and was not changed.

34. One commenter noted that at a 29 August 2007 meeting between the District and state departments of transportation on a previous version of the Guidance, the Guidance was to be used for projects requiring individual permits, not general permits.

The current Guidance is to be used for any Corps-required compensatory mitigation.

35. One commenter noted that they had recommended no more than 10:1 ratio for preservation for the 2007 version of the Guidance and wondered why 15:1 was used.

This was addressed in the response to comments for the 2007 Guidance that was posted on our website at that time. Preservation does not provide for any replacement of impacted functions and only prevents future impacts to wetland functions. As such, the compensation ratio for preservation is necessarily much higher than for forms of compensation which increase wetland functions. 36. One commenter wanted the Guidance to specifically state that forested areas should be allowed for use as wetland creation sites.

While many upland systems are valuable, forested systems take some of the longest time to replace. They also provide important functions such as carbon sequestration. National Corps guidance, including recommendations from the National Academy of Sciences' National Research Council, has long recommended against the use of ecologically high quality systems for wetland mitigation. The 404(b)(1) Guidelines proscribe alternatives that would be more environmentally-damaging, such as impacts to high quality uplands. The individual merits of any mitigation site must be viewed in the context of net functional replacement and that includes looking at what functions may be impacted by the mitigation work. As such, degraded sites are recommended for use in compensatory mitigation. However, if there are watershed considerations which indicate a need to avoid certain types of uplands, there is flexibility to do so.

37. Two commenters stated that recognition of an applicant's history of success should be used on a case-by-case basis to lower ratios. A proven mitigation methodology from an applicant and confidence that the proposed plan substantially reduces the risks inherent in wetland construction may be considered in determining the appropriate ratios for a specific project. However, likely success of a proposal is only one factor in determining adequate compensatory mitigation. Suitable types and amounts are necessary for functional replacement.

38. One commenter wanted the guidance to specify when compensatory mitigation would be required.

The decision to require compensatory mitigation is project-specific and dependent on many factors. These are left to the District Engineers discretion. This document is intended to provide guidance to develop appropriate compensatory mitigation when it is required.

39. One commenter suggested that the Invasive Species section be renamed to "Invasive Species and Noxious Weeds."

The term "noxious weed" has a very specific definition. Section 403 of the Plant Protection Act (PPA) defines Noxious Weed as:

"any plant or plant product that can directly or indirectly injure or cause damage to crops (including nursery stock or plant products), livestock, poultry, or other interests of agriculture, irrigation, navigation, the natural resources of the United States, the public health, or the environment."

The federal list of noxious weeds includes many plants not included on the invasive species list in the Guidance, and some of the invasive species in the Guidance are not on the Federal Noxious Weed List. These are different things and the goal of the Guidance was to list species that have been noted as problem species in New England to help limit their spread via compensatory mitigation. It is not meant to encompass noxious weeds per se.

40. One commenter stated that the Guidance should not be used with programmatic general permits since they are meant to review minimal impact projects.

This Guidance applies to all permit actions. The Guidance includes many recommendations, many of which are technical. It is designed to improve the compensatory mitigation projects and better mitigate impacts to aquatic resources. This should apply to any compensatory mitigation project because simply doing poor mitigation because the impacts do not require an individual permit is a waste of resources, time, and money, and results in loss of aquatic resource function.

41. One commenter stated that this guidance should be as consistent with state wetland regulations as possible.

There are six New England states and each state program is different from the others and from the federal Clean Water Act. Compensatory mitigation must be developed by each program to meet its needs. If state-required compensation does not adequately provide for impacts to federally-protected resources, additional compensation would be necessary. The opposite is also true, if federally-required compensation does not adequately compensate for impacts to state-protected resources.

42. One commenter noted that as there is temporal loss, there should also be temporal gains, as when mitigation banking is used.

This may be appropriate once mitigation banking projects are developed in New England (currently, there are none). Even with mitigation banks, proportions of the credits are able to be used prior to development of proposed aquatic resource functions at the bank and would not provide temporal gains. It should be noted that research shows that many chemical and biological functions take many more years to develop than the emergent and scrub-shrub vegetation that grows on a site. Therefore, unless mitigation is in place many years, and perhaps decades, ahead of impacts, there are still likely to be temporal losses.

43. One commenter recommended that the Guidance should identify appropriate functional assessment by HGM or similar arithmetic method to assess and evaluate the "functional lift" provided by enhancement projects. *This is a future goal; however, currently, there are no HGM models, or even a full HGM classification for New England. Development of an arithmetic method of functional assessment is presently being evaluated for development in New England, where we presently only have a qualitative methodology.*

44. One commenter noted that it is unlikely that attempting to establish new eelgrass beds in areas currently unoccupied (and unmodified or disturbed) would be successful.

Successful eelgrass establishment has occurred in such areas in New England waters. Local eelgrass experts were consulted for input on eelgrass portions of the Guidance and partially authored these portions.

45. One commenter wanted examples of project-specific ratios that would be higher or lower than those recommended in the Guidance.

Since the District first established recommended compensatory mitigation ratios nearly three years ago, compensatory mitigation projects have been authorized with higher and lower amounts required than the ratios would have recommended. There is no set type of project that falls into these categories, but is based on the specific aquatic resources impacted and the proposed compensatory mitigation options.

46. One commenter wanted to know how time delays due to disagreement between the Corps, EPA, and the state would be minimized. *It is not expected that the revised Guidance will affect the current level of time delays and was not devised to address any existing concerns in this area.*

47. One commenter wanted to know if higher mitigation credit would be allowed for mitigation sites near impaired waters to encourage mitigation in these watersheds.

This decision is currently made as a project-specific concern.

48. One commenter noted that risk and uncertainty should not always be used to trigger higher ratios since that does not correct risk and uncertainty. *At least some risk and uncertainty will always exist at restoration, creation, and enhancement sites. It has been observed, and is included in national guidance, that a margin of safety is often necessary to account for portions of the compensatory mitigation site which may not adequately develop wetland functions or may not develop them at all (e.g., a proposed 5-acre mitigation site which only develops 4 acres of wetlands). Having a higher ratio increases the likelihood that a larger overall area will provide the intended aquatic resource functions.*

49. One commenter noted that the Guidance does not encourage mitigation banking.

Due largely to regional concerns beyond the scope of this Guidance, no mitigation banks have yet been established in New England. This Guidance was not designed to encourage or discourage mitigation banking, merely to work with realistic compensatory mitigation options presently available. Any mitigation banks or In-Lieu Fee programs must use the mitigation plan guidance just as any permittee must.

50. One commenter was concerned that the high ratio for upland buffer restoration would discourage this important compensatory mitigation site feature.

The ratios for upland preservation and wetland preservation were chosen to be the same based on comments received during the public notice period for the last revision to this Guidance in 2007. Upland restoration ratios were also recommended at that time. Neither has been changed for this version of the Guidance.

51. One commenter state that "Guidelines" should encourage removal of abandoned septic systems and allow credit for upgrading systems. *Projects have received compensatory mitigation credit for such work. This was not specifically identified in the Guidance, since such projects make up a very small component of proposed compensatory mitigation and flexibility has continued to allow such projects.*

52. One commenter stated that secondary impact mitigation should be based on measurable impacts to aquatic resources rather than speculative judgments.

In many cases, secondary impacts can be and are measured to assess impacts. In some instances, these impacts will have to be assessed qualitatively as empirical data is not available and may be too burdensome for the applicant to generate.

53. One commenter noted that secondary impacts should not be compounded by the subsequent activities of others that occur after permit submittal.

This comment is unclear, but seems they may be concerned with cumulative impacts rather than secondary impacts. This is a different issue and has no bearing on this Guidance.

54. One commenter asked if mitigation for secondary impacts would require a significant nexus determination.

The significant nexus determination is an element of jurisdiction, not compensatory mitigation. It only applies to Approved Jurisdictional Determinations and has no bearing on this Guidance.

55. One commenter was concerned that performance standards and ratios were too high and might be burdensome to permittees.

After assessing failure to replace impacted functions rates at well over 50%, the District is trying to ensure more effective compensatory mitigation is provided. The Mitigation Rule also emphasizes the need to develop ecological performance standards.

56. One commenter noted that the requirement to submit plans on 8 $\frac{1}{2} \times 11^{\circ}$ sheets was archaic, inefficient, and costly.

Permit authorizations are still issued in printed format and project and compensatory mitigation plans must be appended to the permit. We are considering other options. 57. One commenter felt that conservation easements should not require perpetual maintenance, equating this to an unfunded federal mandate on private property. They also noted that they received perpetual protection under CWA Section 404.

The Mitigation Rule notes the need for long-term management of compensatory mitigation sites and states that a "long-term management plan should include a description of long-term management needs, annual cost estimates for these needs, and identify the funding mechanism that will be used to meet those needs" (33 CFR 332.7(d)(2)). A compensatory mitigation site is not merely a piece of property; it is compensation for a federal permit and must be adequately protected and maintained. Section 404 provides a regulatory process for filling jurisdictional waters, including wetlands. Compensatory mitigation sites may not be jurisdictional. Since the majority of Section 404 permits are issued, even jurisdictional compensatory mitigation sites may receive poor protection based solely on Section 404.