



US Army Corps  
of Engineers®

# REGULATORY GUIDANCE LETTER

No. 19-01

Date: 22 February 2019

SUBJECT: Mitigation Bank Credit Release Schedules and Equivalency in Mitigation Bank and In-Lieu Fee Program Service Areas.

## 1. Purpose and applicability.

a. Purpose. The U.S. Army Corps of Engineers' (Corps) regulations at 33 CFR Part 332 give the Corps the authority to approve mitigation banks and in-lieu fee programs that provide compensatory mitigation to offset losses of aquatic resources authorized by Department of the Army (DA) permits. The purpose of this Regulatory Guidance Letter (RGL) is to provide guidance to district engineers on two issues relating to that authority: credit release schedules for mitigation banks and consistency in establishing service areas for mitigation banks and in-lieu fee programs.

b. Applicability. This guidance applies to mitigation banks and in-lieu fee programs that have not yet been approved by district engineers under 33 CFR Part 332. For mitigation banks that have already been approved by the Corps, sponsors may request modifications to their instruments to use the credit release schedule approach described in this RGL. Sponsors of approved mitigation banks and in-lieu fee programs may also request modifications to their instruments to adjust service areas. District engineers may modify credit release schedules and service areas at any time as long as they follow the instrument modification procedures at 33 CFR 332.8(d) and (g).

This guidance does not apply to credit release schedules for other types of resources that may be provided by multi-purpose mitigation banks, such as species credits for endangered or threatened species to be produced by joint Clean Water Act Section 404 wetland/stream mitigation banks-Endangered Species Act conservation banks.

This guidance is based on regulations that contain legally binding requirements. This guidance is not a substitute for those regulations, does not create legally binding requirements, and is not a regulation itself. It does not impose legally binding requirements on the Corps, mitigation providers, or permittees, and may not apply to every situation. The Corps retains the discretion to adopt approaches on a regional or case-by-case basis that differ from those provided in this guidance as appropriate and consistent with statutory and regulatory requirements.

## **2. Guidance.**

a. Section 332.8 identifies three general phases in the credit release schedule for mitigation banks: an initial credit release (§332.8(m)), interim credit release(s) that are linked to achievement of performance-based milestones (§332.8(o)(8)(i)), and a final credit release, which should be comprised of a significant share of projected credits that are to be released once full achievement of the ecological performance standards for the mitigation bank has occurred (§332.8(o)(8)(i)). The regulation does not specify or limit the number of interim credit releases to occur between the initial credit release and the final credit release. In current practice, this interim release usually consists of incremental credit releases that occur as the bank site achieves one or more performance-based milestones. This RGL explains how the interim credit release can also be conducted as a single release of credits as long as sufficient financial assurances are in place to provide a high degree of confidence that the ecological performance standards will be achieved. If the district engineer does not have a high degree of confidence that the mitigation bank sponsor will keep those financial assurances in place until the ecological performance standards are achieved, then he or she should require a credit release schedule with incremental credit releases that occur as the bank site achieves one or more performance-based milestones.

b. In the event a mitigation bank does not meet the performance milestones specified in the mitigation plan, including the ecological performance standards, financial assurances should cover the cost of providing replacement compensatory mitigation, including costs for land acquisition, planning and engineering, legal fees, mobilization, construction, and monitoring (§332.3(n)(2)). The financial assurances should also cover the costs of making mid-course corrections or conducting adaptive management necessary to achieve those ecological performance standards if the mitigation bank sponsor is unwilling to take those corrective actions. Consistent with §332.3(n)(1), those financial assurances must provide a sufficient level of confidence that the mitigation bank will be successfully constructed and achieve its ecological performance standards. Therefore, those financial assurances can take the place of additional post-construction interim credit releases as a mechanism for incentivizing the achievement of ecological performance standards for the final credit release. An in-lieu fee program sponsor could qualify for a similar credit release schedule for an in-lieu fee project, as long as he or she is willing to post similar financial assurances for that in-lieu fee project.

c. If the mitigation bank sponsor establishes sufficient financial assurances as discussed in the previous paragraph, and keeps those financial assurances in place until the mitigation bank achieves its ecological performance standards, then the credit release schedule can consist of three stages. Those stages are: (1) the initial credit release under §332.8(m), (2) a post-construction credit release that occurs after construction of the mitigation bank is completed and the district engineer determines after (i) reviewing the first post-construction monitoring report (which may include as-built plans for the mitigation bank site), and (ii) consulting with the Interagency Review Team, that the mitigation bank site has been successfully constructed, and (3) the final

credit release associated with the full achievement of the ecological performance standards (i.e., the significant share under §332.8(o)(8)(i)). The amount of interim credits that could be released would be the number of projected credits for the mitigation bank minus the initial credit release and the significant share under for the final credit release. As a general rule, the significant share should be between 15% to 25% of the total number of credits expected to be produced by a mitigation bank.

d. The credit release schedule described in this RGL should not alter the monitoring requirements for the mitigation bank. Furthermore, it should not alter the requirements for the preparation and submission of monitoring reports to the district engineer in accordance with the schedule specified in the approved mitigation plan, the district engineer's review of those monitoring reports, and using the information in the monitoring reports to require the sponsor to take the actions necessary to ensure achievement of the ecological performance standards for the mitigation bank. Early identification of problems, making mid-course corrections to address deficiencies identified through monitoring, and conducting adaptive management activities, are critical to a mitigation bank achieving its objectives and thus offsetting permitted impacts to jurisdictional waters and wetlands. In other words, if deficiencies in the mitigation bank occur, they should be identified and responded to as early as possible, to increase the likelihood of achieving the ecological performance standards by the end of the monitoring period, so that the final credit release can occur.

e. To be eligible to be considered for the credit release schedule described in this RGL, the district engineer should require the mitigation bank sponsor to post those financial assurances until the ecological performance standards are achieved to provide the high level of confidence in accordance with §332.3(n)(1). If the mitigation bank sponsor wants the financial assurances to be released back to either the sponsor or the financial assurance provider in phases as performance-based milestones in the credit release schedule are achieved (§332.3(n)(4)), then he or she can request that the district engineer approve a credit release schedule with a greater number of interim credit releases linked to performance-based milestones.

f. The credit release schedule described in this RGL and illustrated by this example in this paragraph is presented as an option to consider. To specifically illustrate the guidance in paragraph 3(c), consider the following example for a proposed mitigation bank for which the sponsor establishes financial assurances that cover the costs of bank construction, maintenance, and management, including costs for mid-course corrections and adaptive management that may be needed to achieve the ecological performance standards for that mitigation bank. The mitigation bank is expected to produce 100 wetland credits. The Corps approves an initial credit release of 20 credits, and determines that the significant share required by §332.8(o)(8) consists of 20 credits. That leaves a post-construction credit release of 60 credits, to become available for sale or transfer to permittees after the Corps reviews the first post construction monitoring report including as-built plans for the mitigation bank and approves the post-construction credit release under the procedures in §332.8(o)(9). The final credit release would occur after the district engineer determines that the

ecological performance standards have been achieved. The example provided in this paragraph is not prescriptive. The district engineer is responsible for determining, after consulting with the Interagency Review Team, the appropriate credit release schedule after considering the specific characteristics of the mitigation bank. This RGL does not limit any flexibility provided by 33 CFR Part 332.

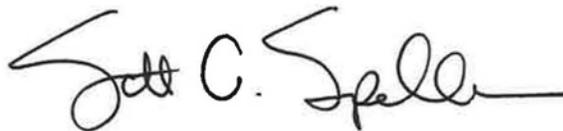
g. This guidance does not apply to credit release schedules for other types of resources that may be provided by multi-purpose mitigation banks, such as species credits for endangered or threatened species to be produced by joint Clean Water Act Section 404 wetland/stream mitigation banks-Endangered Species Act conservation banks.

h. Service areas for mitigation banks and in-lieu fee programs. Congress mandated that 33 CFR Part 332 “apply equivalent standards and criteria to each type of compensatory mitigation” (see Section 314(b) of Pub. L. 108–136). Therefore, each Corps district should ensure that, within their district, service areas for mitigation banks and in-lieu fee programs are established using the same criteria. Thus, service areas for mitigation banks and in-lieu fee programs operating in the same Corps district and providing mitigation credits for similar aquatic resource categories should be based on the same geographic criteria (e.g., watershed, ecoregions, physiographic provinces), as long as the mitigation bank sponsor uses similar criteria for selecting compensatory mitigation sites as the in-lieu fee program sponsor. (In other words, all things being equal, mitigation banks and in-lieu fee programs should have similar service areas.) Because mitigation banks and in-lieu fee programs differ primarily in the timing of implementation of compensatory mitigation projects, there is no ecological basis for approving different service areas for mitigation banks and in-lieu fee programs that provide credits for similar aquatic resource types and use similar site selection criteria. For example, if an approved in-lieu fee program that provides compensatory mitigation for impacts to forested wetlands has its service area based on an 8-digit hydrologic unit, a mitigation bank that also provides compensatory mitigation for impacts to forested wetlands by using site selection criteria similar to the in-lieu fee program’s site selection criteria should also have a service area based on an 8-digit hydrologic unit.

i. Although §332.8(c)(2)(i) states that the compensation planning framework for a proposed in-lieu fee program must include a watershed-based rationale for the delineation of each service area for that in-lieu fee program, a watershed-based rationale can support service areas that are not simply 6- or 8-digit hydrologic units, but can be other scales of hydrologic units, topographic watersheds, ecoregions, physiographic provinces, or other appropriate geographic areas.

3. **Duration.** This guidance remains effective unless revised or rescinded.

FOR THE COMMANDER:

A handwritten signature in black ink, appearing to read "Scott C. Spellmon". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

SCOTT A. SPELLMON  
Major General, USA  
Deputy Commanding General  
for Civil and Emergency Operations

## **Appendix for RGL 19-01 – Background Information**

a. District engineers may require compensatory mitigation 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 (§332.1(d)). District engineers may also require compensatory mitigation for unavoidable impacts to jurisdictional waters and wetlands to ensure that an activity requiring a Clean Water Act section 404 permit complies with the Section 404(b)(1) Guidelines (§332.1(c)(3)). The Corps' compensatory mitigation regulations at 33 CFR Part 332 allow three compensatory mitigation mechanisms to offset impacts to jurisdictional waters and wetlands authorized by DA permits: mitigation banks, in-lieu fee programs, and permittee-responsible mitigation.

b. Mitigation banks, in-lieu fee programs, and permittee responsible compensatory mitigation projects produce compensatory mitigation credits by conducting aquatic resource restoration, enhancement, preservation, and establishment activities. A compensatory mitigation credit represents “the accrual or attainment of aquatic functions at a compensatory mitigation site.” (§332.2) Per that same regulation, the number of compensatory mitigation credits should be based on increases in ecological functions that will be present or are expected to occur when the compensatory mitigation project achieves its objectives. Credits from a mitigation bank or an in-lieu fee project are produced in accordance with a credit release schedule associated with an approved mitigation plan (73 FR 19621). For permittee-responsible mitigation, credits are produced when a compensatory mitigation project is implemented in accordance with the approved mitigation plan (73 FR 19621).

c. Mitigation banks and in-lieu fee programs both involve off-site compensatory mitigation activities conducted by a mitigation bank sponsor or in-lieu fee program sponsor. Mitigation banks and in-lieu fee programs both conduct consolidated aquatic resource restoration, enhancement, preservation, and establishment projects. When a permittee's compensatory mitigation requirements are satisfied by a mitigation bank or in-lieu fee program, responsibility for ensuring that required compensation is completed and ecologically successful shifts from the permittee to the mitigation bank sponsor or the in-lieu fee sponsor. As explained in the preamble to the final rule (see 73 FR 19595), there are, however, several important differences between mitigation banks and in-lieu fee programs. First, mitigation banks are usually (though not always) operated for profit by private entities whereas in-lieu fee programs are administered by governments or non-profit natural resources management entities. Second, mitigation banks usually rely on private investment for initial financing to initiate compensatory mitigation projects while in-lieu fee programs rely on fees collected from permittees. Third, and most importantly, mitigation banks must achieve certain milestones, such as selecting a site, approving a plan, and securing financial assurances, before they can sell credits to permittees, and generally sell a majority of their credits only after the physical development of compensatory mitigation project sites has begun. In-lieu fee programs generally initiate compensatory mitigation projects only after collecting a sufficient

amount of fees to secure an in-lieu fee project site and implement an approved mitigation plan. When advance credits from an in-lieu fee program are used to fulfill the compensatory mitigation requirements of a DA permit, there can be a substantial time lag between the occurrence of the permitted impacts and the production of released credits by an in-lieu fee project that fulfills the obligation incurred by the sponsor through the sale of those advance credits. Permittee-responsible mitigation differs from mitigation banks and in-lieu fee programs, in that it is conducted by the permittee or his or her contractor, and the permittee retains responsibility for ensuring that the compensatory mitigation project is successfully implemented and achieves its objectives. Permittee-responsible mitigation can be located at or adjacent to the impact site (i.e., on-site compensatory mitigation) or at another location generally within the same watershed as the impact site (i.e., off-site compensatory mitigation).

d. To sell or transfer compensatory mitigation credits to permittees to fulfill the compensatory mitigation requirements of DA permits, a mitigation bank sponsor or in-lieu fee program sponsor must have an agreement (known as an “instrument”) signed by the district engineer and the sponsor (§332.8(a)(1)). The mitigation banking instrument or in-lieu fee program instrument is the legal document for the establishment, operation, and use of a mitigation bank or in-lieu fee program (§332.2). When a mitigation banking instrument is approved by the district engineer, it includes the approved mitigation plan (§332.8(d)(6)(iii)(A) and (d)(8)). When an in-lieu fee program instrument is approved by the district engineer, it does not include mitigation plans for any in-lieu fee projects (see §332.8(d)(6)(iv) and (d)(8)) because in-lieu fee projects are planned, designed, reviewed, and approved after the instrument is approved (§332.8(i)(2)) and (j)), as instrument modifications (§332.8(g)(1)). The district engineer consults with an Interagency Review Team before deciding whether to approve mitigation banking instruments, in-lieu fee program instruments, and in-lieu fee projects. The Interagency Review Team is a 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 or an in-lieu fee program (§332.2). The district engineer or his or her designated representative serves as Chair of the Interagency Review Team (§332.8(b)(1)).

e. Each mitigation banking instrument and in-lieu fee program instrument must specify the service area(s) in which credits can be sold or transferred to permittees (§332.8(d)(6)(ii)(A) and §332.8(d)(8)). The service area is the geographic area within which impacts can be mitigated at a specific mitigation bank or an in-lieu fee program, as designated in its instrument (§332.2). The service area may be a watershed, ecoregion, physiographic province, and/or other geographic area (§332.8(d)(6)(ii)(A)).

f. Financial assurances provide resources that can be used to complete the mitigation bank or in-lieu fee project if the sponsor does not take the actions necessary to achieve the objectives of the compensatory mitigation project. Under §332.3(n)(1), the district engineer must either require sufficient financial assurances or approve an alternative mechanism to ensure a high level of confidence that the mitigation bank, in-lieu fee project, or permittee-responsible mitigation project will be successfully

completed and achieve its objectives. The amount of the required financial assurances is determined by the district engineer, in consultation with the project sponsor, and has to be based on the various factors listed in §332.3(n)(2). 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.

g. Section 332.3(b)(2)-(6) establishes a preference hierarchy for mitigation banks, in-lieu fee programs, and permittee-responsible mitigation. The hierarchy in §332.3(b)(2)-(6) is based on administrative and environmental considerations intended to reduce the risk and uncertainty associated with compensatory mitigation projects, and to reduce the risk of temporal losses of aquatic resource functions and services. (See 73 FR 19627-19628.) Reduction of risk and uncertainty associated with compensatory mitigation projects is achieved by favoring compensatory mitigation that is further along in the planning and approval process (mitigation banks) or will better support a watershed approach to compensatory mitigation as described in §332.3(c) (in-lieu fee programs). The administrative considerations reflected by the preference hierarchy include the regulations at 33 CFR Part 332, as well as the differences in timing of implementation of compensatory mitigation projects. Mitigation banks and in-lieu fee projects are required to have credit release schedules consistent with §332.8(o)(8). A credit release schedule requires achievement of specific milestones, and approval by the district engineer, before mitigation bank credits become available to permittees to fulfill the compensatory mitigation requirements of their DA permits or an in-lieu fee project fulfills the obligations incurred by the sponsor through the sale of in-lieu fee program advance credits to permittees. Environmental considerations include the expected ecological benefits of third-party compensatory mitigation as well as independent studies that have shown mixed ecological success from permittee-responsible mitigation.

h. The timing of initiation of compensatory mitigation projects is one of several factors used to establish the mitigation preference hierarchy in §332.3(b). For a mitigation bank, implementation of the approved mitigation plan has to be initiated no later than the first full growing season after the date that the first credit is sold to a permittee (§332.8(m)). For an in-lieu fee project, the program sponsor has to acquire the site and complete initial physical and biological improvements at the site by the third full growing season after the first advance credit in that service area is secured by a permittee, unless the district engineer determines that more or less time is needed for the sponsor to plan and implement an in-lieu fee project (§332.8(n)(4)). Implementation of permittee-responsible compensatory mitigation must be, to the maximum extent practicable, in advance of or concurrent with the authorized impacts (§332.3(m)).

i. Credit release schedules. A credit release schedule specifies milestones (§332.8(o)(8)) that have to be achieved for a mitigation bank site or an in-lieu fee project to produce compensatory mitigation credits.

1. *Mitigation banks.* The mitigation banking instrument for a single-site mitigation bank has to include a credit release schedule for the compensatory mitigation project (§332.8(d)(8) and §332.8(o)(8)(ii)). For an umbrella mitigation bank (i.e., a mitigation banking instrument that allows additional mitigation bank sites to be added to the instrument through the instrument modification process in §332.8(g)(1)) covers more than one mitigation bank site), the credit release schedule is provided in the mitigation plan for each mitigation bank site (§332.8(o)(8)(iii)). For a mitigation bank, the credit release schedule consists of milestones that need to be achieved by a mitigation bank in order for those credits to become available for sale to permittees to fulfill the compensatory mitigation requirements in their DA permits (see the definition “release of credits” in §332.2). Mitigation bank credit releases must be approved by the district engineer before those credits can be sold to permittees (§332.8(o)(9)).

2. *In-lieu fee programs.* An in-lieu fee program may sell advance credits to permittees before implementing an in-lieu fee project. Advance credits are credits of an approved in-lieu fee program that are available for sale to permittees prior to being fulfilled in accordance with an approved in-lieu fee project plan (§332.2). The in-lieu fee program instrument specifies the number of advance credits within a service area that can be sold to permittees before the implementation of an in-lieu fee project. For an in-lieu fee project, the credit release schedule is a component of the approved mitigation plan (§332.8(j)(1) and §332.8(o)(8)(iii)). As released credits are produced by in-lieu fee projects, those released credits are first used to fulfill the obligations incurred by the sale of in-lieu fee program advance credits to permittees to fulfill the compensatory mitigation requirements in their DA permits (see the definition of “fulfillment of advance credit sales of an in-lieu fee program” in §332.2). After the advance credit obligations have been fulfilled, any remaining released credits from the in-lieu fee project may be sold to permittees.

3. *Permittee-responsible mitigation.* A credit release schedule is not required for permittee-responsible mitigation. Instead of a credit release schedule, the mitigation plan for permittee-responsible mitigation has to include, among other things, a mitigation work plan (§332.4(c)(7)) and performance standards (§332.4(c)(9)). The mitigation work plan provides detailed written specifications and work descriptions for the compensatory mitigation project, including the construction methods, timing, and sequence of actions. The performance standards are ecologically-based standards that will be used to determine whether the compensatory mitigation project is achieving its objectives.

j. Section 332.8(m) allows for an initial credit release as long as 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 imposed by the district engineer have been fulfilled. Before additional credits can be released and sold to permittees, the mitigation bank must

achieve appropriate ecological milestones set out in its credit release schedule (73 FR 19614).

k. Section 332.8(o)(8) provides the requirements for credit release schedules for mitigation banks and in-lieu fee projects. Subparagraph (i) of §332.8(o)(8) states that the credit release schedule should reserve a significant share of the total credits for release only after full achievement of ecological performance standards. The rule text provides that the district engineer determines the significant share, after consulting with the interagency review team (IRT). As stated in the preamble to the 2008 mitigation rule, what constitutes a “significant share” of the potential credits generated by the mitigation bank is at the discretion of the district engineer (73 FR 19662). What constitutes a “significant share” depends on the nature of the mitigation bank or in-lieu fee project and the risks and uncertainty associated with successful completion of that mitigation bank or in-lieu fee project. The preamble also states that the “significant share” does not necessarily mean a majority of projected credits anticipated to be produced by the compensatory mitigation project. The purpose of the “significant share” requirement is to provide the sponsor with a strong incentive to complete a mitigation bank or in-lieu fee project and ensure that all ecological performance standards and other milestones are achieved.

l. For mitigation banks, the regulatory text does not specify or limit the number of interim credit releases to take place between the initial credit release in §332.8(m) and the final credit release in §332.8(o)(8)(i) that is dependent on full achievement of ecological performance standards. Likewise, the rule text does not specify or limit the number of interim credit releases required for in-lieu fee projects.

m. The first sentence of §332.8(o)(8)(i) states that the release of credits for mitigation banks and in-lieu fee programs “must be tied to performance-based milestones (e.g., construction, planting, establishment of specified plant and animal communities).” Construction of the mitigation bank site (i.e., implementation of the mitigation work plan required by §332.4(c)(7)) is an important *ecological milestone*, because the construction activities repair physical and biological components on the mitigation bank site to initiate recovery of physical, chemical, and biological processes that produce aquatic resource functions (i.e., compensatory mitigation credits) that are used by permittees to offset losses of aquatic resource functions caused by permitted activities. Examples of construction activities that constitute *ecological milestones* include filling or plugging ditches to restore wetland hydrology, removing drainage tile to restore wetland hydrology, removing obsolete dams to restore river and stream hydrology and sediment transport, and removing fills and structures to daylight streams. Plantings, if they are a component of the approved mitigation work plan, are another important *ecological milestone*, because those plantings attempt to facilitate development of the target plant community for the compensatory mitigation project. However, these construction and planting activities may or may not result in the compensatory mitigation project achieving its ecological performance standards; therefore, monitoring over a period of 5 years or more (see §332.6(b)) is required to track the progress of the compensatory mitigation project over time to determine if it is

developing into the aquatic resource type specified in the objectives of the approved mitigation plan and if it will achieve its ecological performance standards. Monitoring the compensatory mitigation project site is necessary to determine if measures need to be taken to address deficiencies in the compensatory mitigation project so that the compensatory mitigation project will achieve its objectives (§332.6(a)(1) and §332.7(c)(2)).

n. *Ecological performance standards* are used to assess whether the mitigation project is achieving its objectives, including whether it is developing into the desired resource type, providing the expected functions, and attaining any other applicable metrics (e.g., acres) (§332.5(a)). Of the three examples in the first sentence of §332.8(o)(8)(i)), only the third example (“establishment of specified plant and animal communities”) is an ecological performance standard. The other two examples, construction and planting, are ecological milestones, which are different and were described in paragraph m, above. It will take time after completion of the construction activities identified in a mitigation work plan to determine whether the mitigation bank or in-lieu fee project is likely to attain its *ecological performance standards*. For example, while construction activities to restore wetland hydrology may be successfully completed in accordance with the approved mitigation plan, the compensatory mitigation project may or may not achieve the target wetland hydrology by the end of the monitoring period. In this case, adaptive management may be appropriate with monitoring continued until the site achieves its hydrology standard. As another example, vegetation planted at the compensatory mitigation site may or may not survive until the end of the monitoring period to achieve the target plant community specified in the objectives. Some or all of the initial plantings may be replaced by other plant species through natural colonization processes and competition. This may or may not be acceptable depending upon whether the site is providing the functions specified in its objectives.

o. Monitoring is required for all compensatory mitigation projects to determine if the project is meeting its performance standards, and to decide whether measures are necessary to ensure that the compensatory mitigation project is accomplishing its objectives (§332.6(a)(1)). Under §332.6(c)(2), the mitigation bank sponsor or in-lieu fee program sponsor is required to submit monitoring reports in accordance with the terms of the instrument. Monitoring reports should contain information that helps the district engineer determine how the mitigation bank or in-lieu fee project is progressing towards meeting its performance standards, and may include plans (such as as-built plans), maps, and photographs to illustrate site conditions, as well as assessments that provide quantitative or qualitative measures of the functions provided by the compensatory mitigation project site (§332.6(c)(1)).

p. If monitoring indicates that the mitigation bank or in-lieu fee project is not developing as expected and is not progressing towards meeting its performance standards as anticipated, §332.7(c)(2) requires the sponsor to notify the district engineer as soon as possible. The district engineer will evaluate and pursue measures to address deficiencies in the compensatory mitigation project. Those measures often

consist of making mid-course corrections or conducting adaptive management to get the compensatory mitigation project on track to achieve its performance standards. If the sponsor refuses to implement the corrective measures or adaptive management required by the district engineer, there are also a number of other actions available to the district engineer to take, including, suspending credit sales, decreasing available credits, utilizing financial assurances, and terminating the instrument. If financial assurances are utilized, financial assurances required by the mitigation banking instrument or for the approved in-lieu fee project can be used by another party to do those mid-course corrections or adaptive management.

q. Adaptive management measures may include site modifications, design changes, revisions to maintenance requirements, and revised monitoring requirements (§332.7(c)(3)). The regulation requires these adaptive management measures to be designed to ensure that the modified compensatory mitigation project provides aquatic resource functions comparable to those described in the mitigation plan objectives. Section 332.7(c)(4) states that performance standards may be revised in accordance with adaptive management to account for measures taken to address deficiencies in the compensatory mitigation project. The rule text also states that performance standards may be revised to reflect changes in management strategies and objectives if the new standards provide for ecological benefits that are comparable or superior to the approved compensatory mitigation project, and that no other revisions to performance standards will be allowed except in the case of natural disasters. An example of an adaptive management driven revision to performance standards that provides comparable ecological benefits is revising an ecological performance standard for the target plant community. In this example, the plant community (in terms of species composition) that becomes established at the mitigation bank or in-lieu fee project site by the time the final credit release is scheduled to occur is different from target plant community species composition specified in the approved mitigation plan because of natural plant colonization and competition processes, but the mitigation site is providing the functions specified in its objectives.

r. Mitigation banks and in-lieu fee programs are an important tool for streamlining the compensatory mitigation decision-making process for DA permits and ensuring that the aquatic resource functions impacted by permitted activities are offset. For DA permits that require compensatory mitigation to offset losses of aquatic resources caused by the permitted activity, securing credits from mitigation banks and in-lieu fee programs can help shorten permit processing times, because there is no need to review and approve site-specific mitigation plans for permittee-responsible mitigation (73 FR 19603). This preamble to the rule predicted this benefit, which was confirmed by a 2015 analysis<sup>1</sup> of implementation of the 2008 mitigation rule, which showed that permit processing timeframes were approximately 50 percent less when mitigation banks or in-lieu fee program credits were used to satisfy compensatory

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<sup>1</sup> Institute for Water Resources. 2015. *The Mitigation Rule Retrospective: A Review of the 2008 Regulations Governing Compensatory Mitigation for Losses of Aquatic Resources*. Report number: 2015-R-03. Available at: <https://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/2015-R-03.pdf> (accessed 18 October 2018)

mitigation requirements of DA permits, compared to the permit processing timeframes for DA permits that required permittee-responsible mitigation.

s. This guidance does not affect the discretion district engineers have under §332.3(b)(2) to give preference to other mechanisms to fulfill compensatory mitigation requirements for DA permits, such as the use of released credits from an approved in-lieu fee project or a permittee-responsible mitigation project that will restore an outstanding resource based on rigorous scientific and technical analysis.

t. As stated in 33 CFR 332.1(a)(1), the purpose of 33 CFR Part 332 is to implement section 314(b) of the National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136). Section 314(b) directed the Corps to develop standards and criteria in part 332 that, 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. As discussed above, mitigation banks and in-lieu fee programs differ primarily in the timing of implementation of compensatory mitigation projects. For permittee-responsible mitigation, implementation of the compensatory mitigation project is expected to occur, to the maximum extent practicable, in advance of or concurrent with the activity causing the authorized impacts (see §332.3(m)). Therefore, given the differences in timeframes between implementation of mitigation banks, in-lieu fee projects, and permittee-responsible mitigation, this RGL is intended to increase equivalency between mitigation banks, in-lieu fee programs, and permittee-responsible mitigation.

u. The credit release schedule considerations described in this RGL are consistent with 33 CFR 332.8, which provides only general guidelines for establishing credit release schedules for mitigation banks. The credit release schedule described in this RGL will make more mitigation banks credits available for sale or transfer to permittees after the mitigation bank is constructed and begins to provide aquatic resource functions. This credit release schedule is contingent on the mitigation bank sponsor successfully constructing the mitigation bank in accordance with the approved mitigation plan and providing sufficient financial assurances for achievement of the ecological performance standards specified in the approved mitigation plan. By making more credits available for sale to permittees shortly after successful construction of the mitigation bank, there may be reduced reliance on permittee-responsible mitigation, which in many cases has greater risk and uncertainty compared to mitigation bank credits (see §332.3(b)).