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CWA In-Lieu Fee Mitigation: Project and Programmatic Risks

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In 2008, after prompting by the U.S. Congress,[1] the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (the Corps) issued a regulation governing compensatory mitigation under the Clean Water Act (CWA).[2] The agencies' primary goal was to improve the effectiveness of mitigation projects to offset the impacts of filling wetlands and streams.[3] The 2008 Compensatory Mitigation Rule was also designed to level the playing field for the three types of mitigation providers: mitigation banks, in-lieu fee (ILF) programs, and permittee-responsible mitigation.[4]

After a decade of experience with this regulation, it is appropriate to reflect on its implementation. Although much has been written about mitigation banks, less attention (in the literature at least) has been paid to ILF programs and permittee-responsible mitigation.[5] This Comment focuses on ILF programs.

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A key point of the 2008 regulation is that it attempts to reduce risks to ensure that ILF mitigation (as well as other mitigation types) is provided in an effective, sustainable manner on a watershed basis. Challenges abound: Will the mitigation project be done in a timely fashion, to reduce or eliminate the lag time between ecological impacts and offsets? Once the mitigation project is carried out, does the site have sufficient protections—including a source of funding—for long-term stewardship? What happens to mitigation sites if the entity operating the ILF program fades away (e.g., goes bankrupt)?[6] The regulation seeks to minimize the risks associated with such events where, to state it simply, something is missing (the mitigation, the money, or the administrator).

Another broader risk is the regulatory driver underlying the entire CWA mitigation program. There is the risk that a large portion of the Corps' regulatory program will be eliminated, as contemplated by President Donald Trump's Executive Order[7] and EPA and the Corps' subsequent proposed rule to significantly reduce the number of wetlands and streams afforded CWA protection.[8] If the "waters of the United States" replacement rule is promulgated in substantially its present form, what would be the implications for existing ILF mitigation sites? What would be the implications regarding ILF program obligations (e.g., advance credits)? And what would be the implications for the future administration of ILF programs if the federal

1. National Defense Authorization Act for Fiscal Year 2004, Pub. L. No. 108-136, §314, 117 Stat. 1392, 1430-31 (2003).
2. Final Rule: Compensatory Mitigation for Losses of Aquatic Resources, 73 Fed. Reg. 19594 (Apr. 10, 2008).
3. *Id.*
4. *Id.*
5. For example, a Google Scholar search using terms related to "mitigation bank" in the title since 2009 yields more than 50 relevant results, while a similar search using terms related to "in-lieu fee" provides only nine relevant results. Perhaps, this is to be expected, in light of the 2008 Compensatory Mitigation Rule's expressed preference for mitigation bank credits and the corresponding increase in the use of mitigation bank credits, which accounted for approximately 60% in 2017. *See* Palmer Hough & Rachel Harrington, *Ten Years of the Compensatory Mitigation Rule: Reflections on Progress and Opportunities*, 49 ELR 10018, 10025 (Jan. 2019). Of course, since the 2008 Compensatory Mitigation Rule was promulgated, there have been some reports and articles that have focused primarily on ILF mitigation, including Jessica B. Wilkinson, In-Lieu Fee Mitigation: Model Instrument Language and Resources (2009); Rebecca Kihslinger et al., *Establishing In-Lieu Fee Mitigation Programs: Identifying Opportunities and Overcoming Challenges*, 36(4) Nat'l Wetlands Newsl. 8 (2014); and Martin W. Doyle, The Financial and Environmental Risks of In Lieu Fee Programs for Compensatory Mitigation (2019).
6. For a discussion of financial difficulties related to mitigation banks, see generally Royal C. Gardner & Theresa J. Pulley Radwan, *What Happens When a Wetland Mitigation Bank Goes Bankrupt?*, 35 ELR 10590 (Sept. 2005).
7. Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the "Waters of the United States" Rule, Exec. Order No. 13778, 82 Fed. Reg. 12497 (Feb. 28, 2017).
8. Revised Definition of "Waters of the United States," 84 Fed. Reg. 4154 (proposed Feb. 14, 2019).

agencies have much more limited involvement in the protection of aquatic resources?

We will examine these issues after providing background on the rules for and the status of ILF programs. Our analysis is based on a review of ILF program instruments that were listed as approved on the Corps' Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS),[9] as well as standardized phone interviews with program administrators and operators from 41 approved ILF programs.

I. ILF Mitigation Background

When the Corps issues a CWA §404 permit to fill an aquatic resource, it often requires that the environmental impacts be offset through, for example, a restoration project. Traditionally, a §404 permittee performed the compensatory mitigation itself (or hired a consultant to do so), and the permittee remained legally responsible for the success of the mitigation project. This permittee-responsible mitigation typically did not fare well,[10] and thus the Corps and EPA considered other approaches, such as mitigation banks and ILF programs.[11]

Mitigation banks and ILF programs are a type of "third-party" mitigation. Rather than perform the mitigation itself, the permittee purchases credits from a mitigation bank or ILF program, and the responsibility for implementing compensation projects (and ensuring that projects meet performance standards) is transferred to that third party.[12]

A. *2008 Mitigation Rule Requirements*

Prior to the 2008 Compensatory Mitigation Rule, ILF programs were subject to several criticisms. Sometimes, the ILF sponsors collected funds but did not begin projects in a timely manner.[13] Sometimes, the ILF projects were focused on research and education and not directly offsetting the permitted impacts.[14] And the Corps did not appear to be systematically tracking the use of ILF funds.[15] The 2008 Compensatory Mitigation Rule clarified and tightened up the provisions governing ILF mitigation.[16]

ILF programs are now subject to requirements similar to those imposed on mitigation banks.[17] Each ILF program must operate under an ILF program instrument, "the legal document for the establishment, operation, and use of an in-lieu fee program."[18] The program instrument is developed in coordination with the Corps and an interagency review team (IRT),[19] which oversee the program's actions. Unlike mitigation banks, however, which are frequently operated by for-profit entities, ILF programs may only be sponsored by a "governmental or non-profit natural resources management entity."[20]

The 2008 Compensatory Mitigation Rule requires ILF programs to complete several additional planning requirements before their programs can be approved and they can start accepting fees. For example, ILF program instruments must include a compensation planning framework (CPF), which is used to "select, secure, and implement aquatic resource restoration, establishment, enhancement, and/or preservation activities."[21] The program instrument will also

9. RIBITS, https://ribits.usace.army.mil (last visited May 1, 2019).
10. National Research Council, Compensating for Wetland Losses Under the Clean Water Act 113-21 (2001); Royal C. Gardner, Lawyers, Swamps, and Money: U.S. Wetland Law, Policy, and Politics 105-09 (2011).
11. Gardner, *supra* note 10, at 111-40 (discussing history of mitigation banking and ILF programs); *see also* Palmer Hough & Morgan Robertson, *Mitigation Under Section 404 of the Clean Water Act: Where It Comes From, What It Means*, 17(1) Wetlands Ecology & Mgmt. 15 (2009).
12. 33 C.F.R. §332.2.
13. Environmental Law Institute, The Status and Character of In-Lieu Fee Mitigation in the United States (2006).
14. Royal C. Gardner, *Money for Nothing? The Rise of Wetland Fee Mitigation*, 19 Va. Envtl. L.J. 1, 40 (2000).
15. U.S. General Accounting Office, Wetlands Protection: Assessments Needed to Determine Effectiveness of In-Lieu Fee Mitigation (2001).
16. The agencies initially proposed to eliminate ILF programs as a separate mechanism to provide compensatory mitigation. Compensatory Mitigation for Losses of Aquatic Resources, 71 Fed. Reg. 15520, 15530 (proposed Mar. 28, 2006). The final rule retained ILF programs as a compensatory mitigation option, but with stricter requirements. About one-half of the preexisting 47 ILF programs were reauthorized under the 2008 Compensatory Mitigation Rule, while the others were phased out. Institute for Water Resources, The Mitigation Rule Retrospective: A Review of the 2008 Regulations Governing Compensatory Mitigation for Losses of Aquatic Resources 66 (2015).
17. In general, ILF mitigation, like mitigation banking, restores and protects larger, more ecologically valuable parcels and entails more thorough scientific and technical analysis and planning than permittee-responsible mitigation projects. One significant difference is timing. Unlike ILF programs, a mitigation bank cannot sell credits until the mitigation bank site has been secured (e.g., by conservation easement or purchase) and appropriate financial assurances are in place. 33 C.F.R. §332.8(m). Mitigation bank credits are released (and thus available to be sold) based on achieving milestones, including ecological performance. These requirements are one reason why mitigation banks are preferred in the mitigation hierarchy. *Id.* §332.3(b). But a recent action by the Corps seems to undercut the justification for the mitigation hierarchy. In 2008, the agencies touted mitigation bank credits as "performance-based." U.S. EPA & U.S. Army Corps of Engineers, Wetland Compensatory Mitigation Rule (2008) (fact sheet stating that wetland mitigation banks are "performance-based" and the "credits generated by banks are tied to demonstrated achievement of project goals"). The agencies stated that mitigation banks "generally sell a majority of their credits only after the physical development of compensation sites has begun." 73 Fed. Reg. at 19595. However, a February 2019 Corps regulatory guidance letter provides that up to 85% of a mitigation bank's credits may be released before meeting ecological performance standards, so long as financial assurances are in place. U.S. Army Corps of Engineers, Regulatory Guidance Letter No. 19-01, Mitigation Bank Credit Release Schedules and Equivalency in Mitigation Bank and In-Lieu Fee Program Service Areas 2-3 (Feb. 22, 2019).
18. 33 C.F.R. §332.2.
19. The IRT is "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 or an in-lieu fee program." *Id.*
20. *Id.*
21. *Id.* §332.8(c). The CPF must "support a watershed approach to compensatory mitigation," and all of the compensation projects proposed

define the geographic service area for the program—that is, the area within which permitted impacts can be mitigated through a specific ILF program.[22] Moreover, the IRT must review and approve each individual ILF project, and each project site must be protected with appropriate real estate instruments and have dedicated long-term management (LTM) funding in place.

Unlike mitigation banks, ILF programs may begin to sell "advance credits"[23] before securing a compensation site or conducting any mitigation activities. ILF programs thus do not require the significant amount of up-front funding necessary to secure a site and develop a site-specific mitigation plan prior to selling credits. They are, however, expected to charge a credit price based on full-cost accounting: the price should reflect not only project implementation costs (including land acquisition if necessary), but also fund an endowed long-term stewardship account and cover administrative expenses.[24]

ILF programs are no longer permitted to use funds collected on education and research activities; rather, they must be devoted to mitigation projects on the ground that offset permitted impacts. Importantly, to ensure that the mitigation is provided in a timely manner, the 2008 Compensatory Mitigation Rule provides that an ILF program must acquire land and complete the "initial physical and biological improvements" by the third full growing season after it first sells an advance credit in a given service area.[25]

B. *Status*

As of March 2019, 59 ILF programs had been approved to operate under the 2008 Compensatory Mitigation Rule.[26] Of the approved and active programs, 32 are sponsored by governmental entities and 26 are sponsored by nongovernmental environmental organizations.[27] The programs are located throughout the country and range in size and the number and type of projects conducted. Some programs focus on a specific portion of a watershed (e.g., Living River Restoration Trust), while others are statewide in scope (e.g., Montana Aquatic Resources Services).

Nationwide, ILF programs provide a considerable portion of the compensatory mitigation available to offset permitted impacts to aquatic resources. According to Palmer Hough and Rachel Harrington, ILF programs accounted for approximately 17% of compensatory mitigation in 2017.[28]

Programs are generally structured in one of three ways based on how they provide compensation for permitted impacts. These categories include design-build, design-bid-build, and requests for proposals (RFPs).[29] Some programs also routinely purchase mitigation bank credits to meet their mitigation obligations.[30]

For a relatively small number of ILF programs, all program operations—from administration to design to restoration to monitoring to outreach—are for the most part accomplished in-house. These programs, often state agencies, have staffs that have design, surveying, field work, monitoring, administration, and marketing expertise, among other skills. The programs are able to accomplish most of the project work themselves, although they may contract out for large, heavy-duty work or other discrete tasks. In some cases, these programs draw from their larger parent organizations (either private organizations or public agencies) for some of these functions.

Other programs generally contract out parts of the operation—often site selection, engineering, design, and construction. For example, during interviews, several programs stated that program staff may be responsible for administration, project selection, and reporting, but much of the engineering and construction is contracted out.

Another set of programs run RFP processes through which compensation projects are selected.[31] Often projects selected through RFPs are full-delivery mitigation; applicants propose sites, design projects, and implement the compensation project. In some cases, applicants are also responsible for project success (through contract provisions). Projects selected through an RFP process must still go through the same review and approval process as all other ILF projects.

C. *Audits of ILF Programs*

Each ILF program must deposit funds into a program account and track and report on the fees accepted and dis-

by the ILF program must be consistent with the approved CPF. *Id.* §§332.2, 332.8(c)(1).

22. *Id.* §332.2 (service area).
23. The rule defines "advance credits" as
    > any credits of an approved in-lieu fee program that are available for sale prior to being fulfilled in accordance with an approved mitigation project plan. Advance credit sales require an approved in-lieu fee program instrument that meets all applicable requirements including a specific allocation of advance credits, by service area where applicable. The instrument must also contain a schedule for fulfillment of advance credit sales.

    Id.
24. *Id.* §332.8(o)(5).
25. *Id.* §332.8(n)(4).
26. One program (the Conservation Fund's Alaska In-Lieu Fee Compensatory Mitigation Program) was terminated. Eighteen pending programs are also listed on RIBITS. RIBITS, https://ribits.usace.army.mil/ribits_apex/f?p=107:47:13061270404905::NO (last visited May. 1, 2019).
27. *See id.*
28. Hough & Harrington, *supra* note 5, at 10025; *see also* Institute for Water Resources, *supra* note 16, at 11 (reporting that between 2010-2014, for permits requiring mitigation under the 2008 Compensatory Mitigation Rule, 11% used ILF program credits).
29. The above are general categories, and programs may not fall neatly into just one of the categories. For example, some programs (like the Virginia Aquatic Resources Trust Fund) that generally design and implement projects in-house will occasionally issue an RFP for a given project or service area.
30. We were informed that some programs, such as the Georgia-Alabama Land Trust, do so on a regular basis, while other programs do so to ensure compliance with time frame requirements.
31. The programs that reported using RFPs to identify or select projects include North Carolina Division of Mitigation Services, The Nature Conservancy Virginia Aquatic Resources Trust Fund, Wisconsin Wetland Conservation Trust ILF Mitigation Program, Georgia-Alabama Land Trust ILF Program, Maine Natural Resource Conservation Program ILF Program, New Hampshire Aquatic Resource Mitigation Fund, and Connecticut ILF Program. There are other programs that use RFPs for other parts of the project implementation (e.g., restoration work or monitoring).

bursed.[32] Under the 2008 Compensatory Mitigation Rule, a program sponsor must receive written authorization from the Corps before making disbursements from the account, and the sponsor must provide annual reports on the program account to the Corps and the IRT.[33] The 2008 Compensatory Mitigation Rule further provides that the Corps may audit an ILF program account.[34] This is important to ensure that all funds are being used appropriately and are properly tracked and accounted for within the program.

To our knowledge, the Corps has formally audited only two ILF programs: the Virginia Aquatic Resources Trust Fund (audit completed in 2016) and the Tennessee Stream Mitigation Program (audit ongoing in 2019).

The Virginia Aquatic Resources Trust Fund program instrument provides for an independent audit of the entire program every five years. In 2016, the Environmental Law Institute (ELI) performed a programmatic audit, and an independent financial auditor audited the program's financial accounts.[35] ELI examined records provided by the program and program records maintained by the Corps in RIBITS. After a comprehensive review, ELI produced a final audit report finding that the program demonstrated substantial compliance with all but one of the required program elements reviewed.[36]

In 2018, the Corps required the Tennessee Stream Mitigation Program to close seven of 10 service areas in an effort to come back into compliance with the 2008 Compensatory Mitigation Rule's requirements.[37] The program is currently being independently audited, with results expected in 2019.

II. Project-Based Risks

Project-based risks fall into several different categories: whether the mitigation project is commenced in a timely fashion, whether the project is completed and meets its performance standards, and whether the completed project is protected for the long term by a responsible and capable steward with an endowed account. Here, we discuss the results of our research with respect to the front and back ends of the projects, focusing on site acquisition/initial improvements and financial resources for long-term maintenance.[38]

A. *The Three-Year Time Frame: Challenges and Responses*

As noted above, the general expectation is that an ILF program will acquire a project site and complete initial physical and biological improvements by the third full growing season after selling advance credits.[39] This three-year growing season requirement has proven challenging for many ILF programs. Approximately one-half of the programs interviewed had missed or were anticipating missing this time frame in at least one service area or for a given resource type.[40] Those programs that described difficulty in meeting the time frame typically cited the following reasons: small or infrequent credit sales in a service area, resulting in insufficient funds to execute a meaningful project; an inability to locate willing landowners to sell or otherwise participate in the mitigation project; and/or lengthy and cumbersome project approval by agencies.

During interviews, some programs attributed lack of credit sales (and thus insufficient funds) to the size of their service areas. Some programs, usually those with numerous small service areas, expressed that it can be difficult to gather enough funds in certain service areas to meet the three-year growing season time frame. For example, when the Maine Natural Resource Conservation Program ILF was first approved, it subdivided the state into 19 service areas. Development—and hence permitted impacts—tends to be concentrated in southern Maine, however. In these southern service areas, the program was able to gather funds and implement meaningful projects within the three-year time frame.

In contrast, the program had a more difficult time doing so in more northern service areas because in those areas, fewer ILFs were received. To address this challenge, the program worked with its IRT to consolidate the 19 subregions into seven that were more appropriately sized.[41] Likewise, the New Hampshire Aquatic Resource Mitigation Fund ILF program consolidated its 16 watershed areas into nine after a similar experience.

Most ILF compensation frameworks do not identify specific parcels of land as potential mitigation project sites. In some cases where the ILF program contemplated purchasing land or conservation easements, the difficulty in finding willing landowners to sell or donate property

32. *See* 33 C.F.R. §332.8(i).
33. *Id.*
34. *Id.* §332.8(i)(4).
35. The Virginia Aquatic Resources Trust Fund helpfully (and transparently) makes the audit documents available at https://www.nature.org/en-us/about-us/where-we-work/united-states/virginia/stories-in-virginia/virginia-aquatic-resources-trust-fund/ (last visited Apr. 20, 2019).
36. ELI, Program Audit of Virginia Aquatic Resources Trust Fund (2016), https://www.conservationgateway.org/Documents/EnvironmentalLawInstituteVARTFProgramAuditReport.pdf.
37. Letter from Gregg Williams and Tammy R. Turley, U.S. Army Corps of Engineers, to Joey Woodard, Tennessee Wildlife Resources Foundation (Mar. 19, 2018) (on file with authors).
38. There are, of course, nature-based events that can frustrate either the completion or maintenance of a mitigation project, including wildfires and climate change that results in sea-level rise, increased flooding, and saltwater intrusion.
39. The duration of the three-year growing season time period is not necessarily three years and can vary significantly, depending on when the credit sale date occurs relative to the start of the current growing season. If a credit sale occurs immediately before the first full growing season starts, as opposed to during the growing season, an ILF sponsor may have as few as 29 months or as many as 40 months to complete the initial physical and biological improvements.
40. Of those 20 programs, about one-half had missed the time frame in at least one service area or for a given resource type. The other half informed us that while they have not yet missed the time frame, they may have to negotiate an extension in the future for one or more service areas.
41. Third-party mitigation necessarily involves a trade off between economic viability and ecological considerations (e.g., a compensatory mitigation project's distance from the impact site). 33 C.F.R. §332.8(d)(ii)(A) ("The economic viability of the mitigation bank or in-lieu fee program may also be considered in determining the size of the service area.").

or easement rights caused problems with meeting the time frame.

Even when funding and a site are available, delays may nevertheless occur because of the requirement to receive Corps and IRT approval for a project. The quickest reported approval process was about nine months. On the other hand, several programs reported that project approval can take up to three years or more.[42] The timing varied depending on the type of project, Corps district, and whether endangered species review was required. Some programs told us that the very long review time or delays in setting up site visits extended the approval of a given project, leading to service areas going out of compliance.

Programs noted a range of responses to the time frame issue. Most of these programs are working with or have worked with the Corps and IRT on an extension, as permitted by the 2008 regulation. A few programs submitted proposals for extremely small projects or came up with other creative projects, such as purchasing bank credits, to ensure they stayed in compliance. Two programs told us they are facing watershed/service area closures due to lack of compliance. Indeed, the Corps recently required the Tennessee Stream Mitigation Program to close service areas and undergo an independent audit.[43]

A few programs have put processes into place to help ensure compliance. For example, the Arizona Game and Fish Department ILF Mitigation Program informed us that it does not sell advance credits until it has a defined project with realized costs for initial capital restoration costs and long-term endowment establishment. Another approach has been adopted by the National Fish and Wildlife Foundation Sacramento District California ILF Program, which has outlined a process for working with the IRT if the program is nearing the three-year growing season deadline. The program instrument states that if the time period will be exceeded, options include "continuing to wait a specified period of time as determined by the IRT, merg[ing] funds with another Service Area or purchas[ing] bank credits."[44]

At least 16 of the 41 programs that we interviewed told us they are having no trouble meeting the time frame. About one-half of these programs pre-identified project sites or potential sites in their program instruments or conducted projects in advance and thus were not selling advance credits. Several other programs in this group select projects on land owned or managed by program sponsors, use RFP processes for project selection, or select projects identified in state plans. The remaining programs identify and select projects using a prioritization process detailed in their CPF and were generally not conducting projects in advance of selling credits.

42. Other programs reported review and approval times of one year, 16 months, 1.5 years, and two years.
43. Letter from Gregg Williams and Tammy R. Turley, *supra* note 37.
44. National Fish and Wildlife Foundation, Sacramento District California In-Lieu Fee Enabling Instrument exh. E at 2 (2014).

B. *Long-Term Protection: Too Soon to Tell*

Long-term management is everything that happens after the performance standards for a site are met and the agencies have signed off on a site. LTM ensures that the restoration or other compensation efforts continue to provide desired functions after the active phase of the mitigation project is over. It may involve management, maintenance, and monitoring obligations. ILF programs vary in how they approach LTM, including how they finance it.

As the 2008 Compensatory Mitigation Rule explains, "projects shall be designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved."[45] To the extent LTM and maintenance will be necessary (which the National Research Council found to be the case[46]), however, the sponsor must provide for it. As part of the mitigation plan for each project, ILF programs must prepare an LTM plan that describes "how the compensatory mitigation project will be managed after performance standards have been achieved to ensure the long-term sustainability of the resource, including long-term financing mechanisms and the party responsible for long-term management."[47] Additionally, the CPF must include "[a] description of the long-term protection and management strategies for activities conducted by the in-lieu fee program sponsor."[48]

The 2008 Compensatory Mitigation Rule requires that the LTM plan include the party responsible for ownership, the party responsible for LTM, "long-term management needs, annual cost estimates," and the long-term funding mechanism.[49] Most programs told us that a version of the LTM plan[50] is included in the draft mitigation plan submitted for project approval.[51] Many programs also noted that they substantially develop or revise the LTM plan as the project nears completion and moves toward the LTM phase. This allows the program to make any changes necessary to reflect as-built conditions. Several programs told us that the submission of the final LTM plan is required for the final release of credits and before the project can move into the LTM phase. In a few cases, programs told us that

45. 33 C.F.R. §332.7(b).
46. National Research Council, *supra* note 10, at 152 ("The presumption that once mitigation sites meet their permit criteria they will be self-sustaining in the absence of any management or care is flawed.").
47. 33 C.F.R. §332.4(c)(11). The 2008 Compensatory Mitigation Rule also requires that sites be protected in the long term "through real estate instruments or other available mechanisms," such as conservation easements, restrictive covenants, or title transfer. *Id.* §332.7(a).
48. *Id.* §332.8(c)(2).
49. *Id.* §332.7(d). The 2008 Compensatory Mitigation Rule does not include detailed guidance on the development of LTM plans, leaving a lot of discretion to the plan drafters; however, several Corps districts have LTM plan templates or provide some more specific information.
50. Some programs reported that they work with project partners or the compensation site's landowner to develop the LTM plan. ELI and the Land Trust Alliance's report *Wetlands and Stream Mitigation: A Handbook for Land Trusts* (2012) provides technical guides on site protection instruments, LTM plans, and LTM financing mechanisms that may be informative in the development of LTM plans and the calculation of LTM costs. This report also provides information about common sections in LTM plan templates.
51. *See* 33 C.F.R. §332.4(c)(11).

no LTM plan is required for certain types of projects (e.g., barrier removal projects).[52]

LTM roles can include easement holder, fee title holder, and long-term manager (or entity carrying out monitoring and maintenance). Program sponsors perform a range of these activities. Some programs are responsible for at least some of the management duties, while others are primarily working with partners. Many programs are working with other organizations to hold easements on the project sites and/or to handle LTM activities.[53]

As noted above, under the 2008 Compensatory Mitigation Rule, mitigation providers also must provide sufficient funding to meet a site's LTM needs. Most programs told us that LTM is factored into credit prices. Often, there is a line item in the project budget for LTM. Programs vary, however, in how they calculate the LTM costs. There are generally three ways that programs told us that they are determining costs: a calculator, case-by-case, or a percentage of credit price.

Some programs calculate costs using either spreadsheet calculators[54] (their own or one developed by someone else) or computerized database methodologies (such as the Property Analysis Record developed by the Center for Natural Lands Management). These funding formulas and cost calculators are used to calculate the principal amount of the long-term funding mechanism necessary for perpetual stewardship or management of mitigation sites.

As another alternative to using a line-by-line stewardship cost calculator, some ILF programs set aside a portion of credit costs for LTM expenses. Most of these programs told us that these percentages or base rates are based on average LTM costs or experience of nearby programs.

LTM funds must be sufficient to ensure that the LTM needs identified in the LTM plan are covered in the long term. There are a number of steps that may go into calculating long-term funding needed, including "[identifying] the range of duties, activities, and other responsibilities that need to be considered when calculating annual stewardship costs" and calculating annual stewardship costs, enforcement costs, and principal.[55] There are many costs that should be considered in the determination of LTM costs, such as labor costs, supplies and equipment, legal and insurance costs, capital expenses, and others.[56]

Accurately factoring LTM costs can be particularly challenging for pricing advance credits, when a site may not even have been identified yet. An added complication is LTM plans are often not substantially developed until the monitoring period is nearly over.

Although some programs have sites that have entered the LTM phase, most do not. Indeed, some programs have not even started to implement projects yet. In any event, it almost certainly is too early to determine whether the amount of LTM funding and the chosen financing mechanisms will be adequate.[57] If LTM funds for a site are insufficient, the entity responsible for LTM may need to provide funds itself, find other funding options, and/or work with the Corps to prioritize management tasks.[58]

III. Program-Based Risks: Reduction or Elimination of CWA Jurisdiction

The closure of an ILF program, whether during the operational or long-term stewardship phase, is a risk anticipated by the 2008 Compensatory Mitigation Rule.[59] Thus, every instrument has provisions regarding program closure or termination. These provisions were written with the ILF sponsor in mind: what if the sponsor has insufficient funds or moves on to different priorities or even ceases to exist?

The program closure provisions were not written in anticipation of an overall CWA program contraction. Yet the program closure provisions will be highly relevant if the Trump Administration succeeds in limiting the geographic scope of the CWA.[60]

A. *Proposal to Replace the Clean Water Rule*

The driver for all mitigation, including ILF mitigation, is the requirement to offset impacts to aquatic resources. The starting point is the geographic scope of the CWA. If a wetland or stream is not a water of the United States, a developer can fill it without a CWA permit. With no need for a federal permit, there is no need for mitigation, unless it is required by a state program.

Fewer than one-half of the states have wetland and stream permitting programs, and even in those states, some programs exempt certain wetlands based on size, type, or class.[61] In addition, some state programs operate under

52. For example, the Maine Natural Resource Conservation Program In-Lieu Fee Program explained that no LTM plan is required for barrier removal projects, where there is no surrounding conserved land to manage, such as dam removal.
53. Some of the newer programs are still figuring out what they will do as they do not yet have projects that are ready for the LTM phase. They are exploring options and potential partners.
54. *See, e.g.*, *Stewardship Calculator and Handbook*, Nature Conservancy, Apr. 18, 2016, https://www.conservationgateway.org/ConservationPlanning/ToolsData/Pages/stewardshipcalculator.aspx.
55. ELI & Land Trust Alliance, Wetlands and Stream Mitigation: A Handbook for Land Trusts 117 (2012).
56. Other costs may include taxes and expenses related to enforcing easement conditions and addressing easement violations.
57. One warning sign is when a program sponsor stops including administrative costs in its fees, whether to keep pace with competition or to spur sales in a slow market. If full-cost accounting is not practiced with respect to the initial phases of the mitigation project, it does not bode well for the LTM phase. Of course, LTM issues are not confined to ILF programs. *See* Jenny Thomas, *Evaluating Long-Term Stewardship of Compensatory Mitigation Sites: Preliminary Findings From California*, 38(2) Nat'l Wetlands Newsl. 6 (2016) (discussing mitigation banks).
58. ELI & Land Trust Alliance, *supra* note 55, at 139 (discussing prioritization of management tasks).
59. The program instrument should contain default and closure provisions. 33 C.F.R. §332.8(d)(6)(ii)(D).
60. Although the program instruments contain force majeure clauses, they appear to focus on natural catastrophes and other acts of God, rather than acts of Congress or agencies.
61. Rebecca L. Kihslinger, *WOTUS Proposal Poses Challenge for States*, Envtl. L. Inst., Feb. 18, 2019, https://www.eli.org/vibrant-environment-blog/wotus-proposal-poses-challenge-states.

state laws that prohibit them from being more restrictive than the federal CWA program.[62] Accordingly, a contraction in CWA jurisdiction would have a significant impact on mitigation providers.

The parameters of what constitutes a water of the United States have long been the subject of debate and litigation, including a trilogy of U.S. Supreme Court cases.[63] In 2015, the Barack Obama Administration issued the Clean Water Rule to clarify the definition of "waters of the United States."[64] This regulation was promptly challenged by a multitude of parties in a multitude of courts.[65] Currently, the Clean Water Rule is in effect in 22 states.[66] In the other states, the agencies are applying the jurisdictional approach that was employed pre-Clean Water Rule.[67]

When President Trump came into office, he quickly issued an Executive Order directing EPA and the Corps to rescind the Clean Water Rule and replace it with a rule consistent with Justice Antonin Scalia's plurality opinion in *Rapanos v. United States*.[68] The agencies formally proposed rescinding the Clean Water Rule (a final decision on which is pending, while the agencies consider the more than 680,000 public comments they received)[69] and issued a regulation attempting to suspend the Clean Water Rule for two years (which has been enjoined by the courts).[70] In December 2018, the agencies announced a proposed rule to replace the Clean Water Rule.[71] The 60-day public comment period commenced when the proposed rule formally appeared in the *Federal Register* on February 14, 2019, and closed on April 15, 2019.[72]

The replacement rule proposes a drastic reduction in CWA geographic coverage. Neither ephemeral streams nor their adjacent wetlands would be jurisdictional.[73] Many other wetlands would also no longer be waters of the United States. Only wetlands that physically abut or have surface connectivity with intermittent or perennial tributaries of traditional navigable waters (or wetlands abutting the traditional navigable waters) would qualify.[74] Wetlands separated from traditional navigable waters by a road or berm would no longer be jurisdictional.[75]

The agencies stated they could not estimate the proposal's overall reduction of CWA jurisdiction.[76] However, data released through a Freedom of Information Act request suggest that the result could be that 18% of all streams and 51% of all wetlands would no longer receive CWA protection.[77] And these figures could be much higher, as the agencies are contemplating removing intermittent streams and their adjacent wetlands from CWA jurisdictional as well.[78]

If the replacement rule is promulgated in its present form, or constricts CWA jurisdiction even more, the effects on mitigation providers would be dramatic. If there is no demand for mitigation, there will be no market for mitigation credits.[79] While the limited media attention on this issue has focused on the proposed rule's impact on mitigation banking,[80] the effects would be just as significant on ILF programs.

62. *Id.*; *see also* ELI, State Constraints: State-Imposed Limitations on the Authority of Agencies to Regulate Waters Beyond the Scope of the Federal Clean Water Act (2013).
63. United States v. Riverside Bayview Homes, Inc., 474 U.S. 121, 16 ELR 20086 (1985) (upholding assertion of CWA jurisdiction over wetlands adjacent to traditional navigable waters); Solid Waste Agency of N. Cook County v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 31 ELR 20382 (2001) (invalidating the use of the Migratory Bird Rule to assert CWA jurisdiction over geographically isolated waters); Rapanos v. United States, 547 U.S. 715, 36 ELR 20116 (2006) (vacating and remanding assertion of CWA jurisdiction based on mere hydrologic connection). A fourth case, National Association of Manufacturers v. Department of Defense, 138 S. Ct. 617 (2018), involved a meta question: which court has jurisdiction to hear challenges to (CWA) jurisdiction? The answer is the U.S. district courts, rather than the U.S. courts of appeals.
64. Final Rule: Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37054 (June 29, 2015).
65. Royal C. Gardner & Erin Okuno, *The Shifting Boundaries of Clean Water Act Jurisdiction*, 35(4) Wetland Sci. & Prac. 317 (2018).
66. *Id.*
67. *Id.*
68. Exec. Order No. 13778, 82 Fed. Reg. 12497 (Feb. 28, 2017).
69. Definition of Waters of United States—Recodification of Pre-Existing Rules (proposed July 27, 2017), https://www.regulations.gov/document?D=EPA-HQ-OW-2017-0203-0001.
70. South Carolina Coastal Conservation League v. Pruitt, No. 2-18-cv-330-DCN, 2018 U.S. Dist. LEXIS 138595, 48 ELR 20147 (D.S.C. Aug. 16, 2018) (enjoining the suspension rule); Puget Soundkeeper Alliance v. Wheeler, No. C15-1342-JCC, 48 ELR 20197 (W.D. Wash. Nov. 26, 2018) (vacating the suspension rule).
71. U.S. EPA, *Waters of the United States (WOTUS) Rulemaking*, https://www.epa.gov/wotus-rule/step-two-revise (last updated Mar. 19, 2019).
72. Revised Definition of "Waters of the United States," 84 Fed. Reg. 4154 (proposed Feb. 14, 2019).
73. *Id.* at 4173:
> However, tributaries as defined in this proposal do not include surface features that flow only in direct response to precipitation, such as ephemeral flows, dry washes, arroyos, and similar features. These features lack the required perennial or intermittent flow regimes to satisfy the tributary definition under this proposal and therefore would not be jurisdictional.
74. *Id.* at 4204 (proposed rule stating that "adjacent wetlands" are jurisdictional if they "abut or have a direct hydrologic surface connection to a water identified in paragraphs (a)(1) through (5) of this section in a typical year" and defining "direct hydrologic surface connection" as occurring as a result of inundation from perennial or intermittent flow between a wetland and another jurisdictional water).
75. *Id.* (proposed rule stating that "[w]etlands physically separated from a paragraph (a)(1) through (5) water by upland or by dikes, barriers, or similar structures and also lacking a direct hydrologic surface connection to such waters are not adjacent").
76. U.S. EPA & Department of the Army, Resource and Programmatic Assessment for the Proposed Revised Definition of "Waters of the United States" 10 (2018) (stating that "the agencies are unable to estimate the specific aquatic resource jurisdictional changes that would occur as a result of the proposed rule"), https://www.epa.gov/sites/production/files/2018-12/documents/wotus_proposed_step_2_rpa_for_clearance_12-7-18_508c.pdf.
77. Ariel Wittenberg & Kevin Bogardus, *EPA Falsely Claims "No Data" on Waters in WOTUS Rule*, E&E News, Dec. 11, 2018, https://www.eenews.net/stories/1060109323.
78. 84 Fed. Reg. at 4177 ("The agencies also solicit comment on whether the definition of 'tributary' should be limited to perennial waters only.").
79. As noted above, states are unlikely to fill the gaps, even if they were politically inclined to do so. *See supra* notes 61-62 and accompanying text. Indeed, it took California more than a decade to respond to the *Rapanos* and *Solid Waste Agency of Northern Cook County* decisions. Ariel Wittenberg, *Calif. Clinches New Regs Just in Time for Federal Rollback*, E&E News, Feb. 4, 2019, https://www.eenews.net/stories/1060118877.
80. Jason Dearen, *Trump's Move to Redefine Water Rule Threatens Wetlands Banks*, AP News, June 15, 2018, https://www.apnews.com/0198a1bd090944df836a4d97e8fd087b; Ariel Wittenberg, *Trump's Rule Threatens Booming $4B "Restoration Economy,"* E&E News, Jan. 3, 2019, https://www.eenews.net/stories/1060110745.

B. *Implications of CWA Program Contraction on ILF Programs*

If the regulatory driver for purchasing ILF credits is removed, ILF programs may be unable to fund ongoing and planned mitigation projects, beyond using monies already collected from the sale of advance credits. If a program ultimately were shuttered due to financial challenges, the program instrument's closure provisions would come into play. These provisions would govern the program sponsor's obligations regarding existing ILF mitigation sites (both for ongoing and completed projects), commitments regarding future mitigation projects related to the sale of advance credits, and responsibilities regarding any unspent funds. Although every program instrument contains program closure provisions, the details can vary, sometimes significantly.

Most program instruments make clear that in the event of a program closure, the ILF sponsor must finish remaining project obligations.[81] Thus, for a particular mitigation site, the sponsor generally remains responsible to complete restoration or enhancement work, conduct monitoring, and submit status reports.[82] The program sponsor also remains responsible for LTM of the mitigation project, unless those site-specific obligations are transferred (with the consent of the Corps) to another entity.[83] Accordingly, it is the program sponsor that largely bears the (financial) risks associated with CWA program contraction.

In some cases, it is contemplated that the sponsor will have sold advance credits but not yet begun the required mitigation projects. Many instruments—but not all—also call on the sponsor to satisfy any such outstanding program obligations. For example, the instrument for the New Hampshire Aquatic Resource Mitigation Fund states generally that in the event of a program closure, the sponsor "is responsible for fulfilling any remaining obligations of credits sold."[84] The National Fish and Wildlife Foundation's program in the Sacramento District considers a range of closure scenarios, including where advance credits have been sold, but no mitigation projects are in development. In this case, all remaining funds are to be transferred "to the closest mitigation bank or other entity acceptable to the applicable IRT Member(s)."[85] In contrast, some instruments seem only to call on the sponsor to finish site-related duties, as opposed to program-based obligations.[86]

Many closure provisions also address the matter of unused funds that the program collected. These program instruments contain limitations on what the funds may be used for, with a primary emphasis on restoration, enhancement, establishment, and/or protection of aquatic resources in the relevant service area.[87] Sometimes the use is tied to the impacts generating the fees, as in the Inland Empire Resource Conservation District's instrument, which states that the funds must be used in the service area and "should be used, to the maximum extent practicable, to provide compensation for the amount and type of aquatic resource for which the fees were collected."[88]

Often, the program instrument contemplates the transfer of the unused funds to a different entity, with the approval of the Corps or IRT.[89] Program instruments provide a range of potential recipients: other ILF programs, nearby mitigation banks, or other natural resource man-

81. *E.g.*, Hood Canal Coordinating Council In-Lieu Fee Program Instrument 16 (2012) (sponsor "remains responsible for fulfilling any outstanding or pre-existing project obligations including the successful completion of ongoing mitigation projects, relevant maintenance and monitoring, reporting, and long-term management requirements"). An exception appears to be the program instrument for the Land Trust for the Mississippi Coastal Plain, which does not seem to have any provisions regarding project and program obligations in the event of a program closure. *See* Coastal Mississippi In Lieu Fee Program Instrument 20 (2010) (termination provision only discusses termination of IRT member's participation).

82. *E.g.*, Mountains Restoration Trust In Lieu Fee Enabling Instrument 20-21 (2013) (sponsor "is responsible for fulfilling any remaining ILF Project obligations including the successful completion of ongoing mitigation projects, relevant maintenance, monitoring, reporting, and long-term management requirements"); Quil Ceda Village In-Lieu Fee Program Instrument 20 (2013) (sponsor "remains responsible for fulfilling any outstanding or pre-existing project obligations").

83. *E.g.*, Coachella Valley ILF Enabling Instrument 20-21 (2014) (sponsor "is responsible for fulfilling any remaining ILF Project obligations including . . . long-term management requirements"); Northwest Florida Water Management District, In-Lieu Fee Mitigation Program Final Instrument 13 (2015) (sponsor "is responsible for fulfilling any remaining project obligations including . . . long term management requirements").

84. New Hampshire Aquatic Resource Mitigation Fund, Final In-Lieu Fee Program Instrument 42 (2012). In some cases, conservation easements may be vacated if credits from the site have not been used. Indiana Stream and Wetland Mitigation Program Instrument 17 (2018) ("If no released credits for a mitigation project have been generated and subsequently used to fulfill advance credits or otherwise transferred, the site protection instrument may be vacated with written approval of the Corps.").

85. National Fish and Wildlife Foundation, *supra* note 44, at 14.

86. Modification Number Three of the Agreement Concerning In-Lieu Mitigation Fees Between U.S. Army Corps of Engineers, Northern Kentucky University Center for Applied Ecology, and Northern Kentucky University Research Foundation 10 (2012) (sponsor "shall complete all existing contracts for projects approved by the Corps . . . and expenses incurred on behalf of these projects"); Georgia Land Trust In-Lieu Fee Program, Program Instrument app. B at 17 (sponsor "shall complete payments on site specific projects approved by the [Corps]," and any remaining funds shall be paid to "another Sponsor or to another designated management entity (including mitigation bank(s))").

87. *E.g.*, Ducks Unlimited, Inc., Mississippi Delta In-Lieu Fee Program Instrument 8 (2010) ("Funds remaining in the MSD-ILFP Account after these obligations are satisfied shall be used by DU, it [sic] heirs, successors or assigns to complete restoration, establishment, enhancement, and/or preservation of aquatic resources within the program service area."); Prescott Creeks Preservation Association, In-Lieu Fee Enabling Instrument 19 (2013) ("Funds remaining in the Program Accounts . . . must continue to be used for the Restoration, Establishment, Enhancement, and/or Preservation of aquatic resources within the Service Area.").

88. Inland Empire Resource Conservation District, In-Lieu Fee Enabling Instrument 20 (2018); *see also* La Paz County Endangered Species Fund 290, In-Lieu Fee Enabling Instrument 19 (2013) (same).

89. *E.g.*, Ducks Unlimited—New York In-Lieu Fee Program, Final Instrument 11 (2012) (Corps may direct disbursement of "funds to a governmental or non-profit natural resources management entity willing to undertake further compensation activities"); Virginia Aquatic Resources Trust Fund, Program Instrument 10 (2011) (payment to "any entities as specified by the IRT"). An outlier is the Oregon Department of State Lands, which would retain the funds. Oregon Department of State Lands, Statewide In-Lieu Fee Instrument 14 (2012) (stating that the funds, which "should continue to be used for" restoration, enhancement, establishment, and/or protection of aquatic resources, will remain with the Oregon Removal-Fill Mitigation Fund, subject to oversight by the legislature).

agement entities.[90] The common objective is to channel the funds to an entity that is willing to provide and manage compensatory mitigation.

IV. Conclusion

ILF programs have implemented hundreds of compensatory mitigation projects across the country. Many more projects are pending or in the planning stages. And new programs continue to come online to provide additional compensation options for permittees.

The 2008 Compensatory Mitigation Rule sought to minimize project-based risks that are inherent in all compensatory mitigation efforts. Through our research, we found that the 2008 Compensatory Mitigation Rule's requirement that ILF mitigation projects commence within the first three growing seasons after selling the first advance credit in the service area is one of the more challenging elements of administering an ILF program. In addition, ILF programs are still working to figure out how to accurately estimate LTM costs and whether or not the funds set aside will be sufficient over the long term. We lack data on whether these LTM funds are or will be sufficient. This question—along with challenges related to contingency funding, adaptive management, and changing site conditions—will be an increasingly important question as more ILF projects are completed.

Also important are changing programmatic conditions. If put into effect, proposals to constrict the geographic jurisdiction of the CWA would undoubtedly affect mitigation providers, such as ILF programs. Removing or severely limiting the federal driver for mitigation credits would dry up the source of funding for ILF programs in states without their own robust wetland and stream permitting programs. In such a scenario, the closure provisions of an ILF program instrument could unexpectedly come into play.

90. *E.g.*, North Coast Regional Council of Park Districts In-Lieu Fee Program, Final Instrument Buffalo District 13 (2015) (authorizing the Corps, in consultation with the IRT, to direct the sponsor to "disburse funds to another entity such as a governmental (including a member park district of North Coast) or nonprofit natural resource management entity willing to undertake further compensation activities"); Ojai Valley Land Conservancy, Ventura River Watershed In-Lieu Fee Program Instrument 18 (2013) (authorizing the Corps to "direct the Program Sponsor to use these funds to secure Credits from another source of third-party mitigation, such as another in-lieu fee program, mitigation bank, or another entity such as a governmental or non-profit natural resource management entity willing to undertake the compensation activities"). Interestingly, some instruments place a limit on how many entities may receive the funds. *E.g.*, New Hampshire Aquatic Resource Mitigation Fund, *supra* note 84, at 42 (disbursement of funds to up to five other organizations at the Corps' discretion).